







# THE RESOURCES OF THE EMPIRE

*A business man's survey of the Empire's resources  
prepared by the Federation of British Industries.*



## THE RESOURCES OF THE EMPIRE SERIES

*Comprising twelve self-contained volumes dealing with the following industries. Each volume contains a Foreword by H.R.H. the Prince of Wales, K.G., and a General Introduction by Sir Eric Geddes, G.C.B.*

**FOOD SUPPLIES.** By Professor J. R. AINSWORTH-DAVIS. Part 1—CROPS AND FRUITS. With an Introduction by STANLEY MACHIN, J.P. Part 2—MEAT, FISH, AND DAIRY PRODUCE. With an Introduction by Sir GORDON CAMPBELL, K.B.E. (Vol. I.)  
(The Foreword and General Introduction to the volume appear in Part 1.)

**TIMBER AND TIMBER PRODUCTS.** By S. J. DULY, M.A. With an Introduction by LORD LOVAT, Chairman of the Forestry Commission. (Vol. II.)

**TEXTILE FIBRES AND YARNS.** By J. S. M. WARD, B.A., F.S.S. With Introductions by LORD BARNBY, and H. W. LEE, Chairman of the Fine Cotton Spinners' and Doublers' Association, Ltd. (Vol. III.)

**FUEL.** Edited by G. W. ANDREW, M.Sc., F.I.C. With an Introduction by Sir ROBERT HADFIELD, Bt., D.Sc., F.R.S., M.Inst.C.E. *Sections on Coal, Lignite, and Peat by Professor Henry Louis, M.A., D.Sc., M.Inst.C.E.; on Fuel Oils by Arthur W. Eastlake, M.I.Min.E.; and on Power Alcohol by Dr. W. R. Ormandy, F.I.C.* (Vol. IV.)

**RUBBER, TEA, AND CACAO.** With Special Sections on Coffee, Spices, and Tobacco. By W. A. MACLAREN. With an Introduction by H. ERIC MILLER, Vice-Chairman of the Rubber Growers' Association. (Vol. V.)

**LEATHER.** By E. C. SNOW, M.A., D.Sc. With an Introduction by Sir SAMUEL BARROW, Chairman of the United Tanners' Federation. (Vol. VI.)

**CHEMICALS.** By A. W. ASHE and H. G. T. BOORMAN, A.I.C. With an Introduction by Sir MAX MUSPRATT, Bart., Chairman of the Association of British Chemical Manufacturers. (Vol. VII.)

**FERROUS METALS.** By M. S. BIRKETT. With an Introduction by ARTHUR DORMAN, President of the International Federation of Iron and Steel Manufacturers. (Vol. VIII, Part 1.)

**NON-FERROUS METALS.** By N. M. PENZER, M.A., F.G.S., F.R.G.S. With an Introduction by Sir RICHARD REDMAYNE, K.C.B., Director of the Imperial Mineral Resources Bureau. (Vol. VIII, Part 2.)

**OILS, FATS, WAXES, AND RESINS.** By E. RICHARDS BOLTON, F.I.C., and RUSSELL G. PELLY, F.I.C. With an Introduction by J. H. BATTY, Chairman of the African and Eastern Trade Corporation. (Vol. IX.)

**COMMUNICATIONS.** By W. TETLEY STEPHENSON. With an Introduction by Sir HALFORD MACKINDER, Chairman of the Imperial Shipping Committee. (Vol. X.)

THE RESOURCES OF THE EMPIRE SERIES

# LEATHER, HIDES, SKINS & TANNING MATERIALS

BY

E. C. SNOW, M.A., D.Sc.

*(Manager of the United Tanners' Federation)*

WITH A FOREWORD

BY

H.R.H. THE PRINCE OF WALES, K.G.

AND GENERAL INTRODUCTIONS BY

THE RT. HON. SIR ERIC GEDDES, G.C.B.

*(President of the Federation of British Industries)*

AND

SIR SAMUEL BARROW, J.P.

*(Chairman of the United Tanners' Federation)*



LONDON: ERNEST BENN LIMITED  
8 BOUVERIE STREET, E.C. 4.

1924

MADE AND PRINTED IN GREAT BRITAIN

333.72

1 887

55

*The Mayflower Press, Plymouth.* William Brendon & Son, Ltd.

# FOREWORD

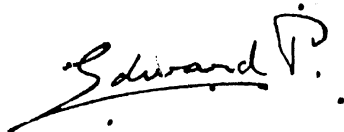
BY

H.R.H. THE PRINCE OF WALES, K.G.

No business man—especially should he contemplate an extension of activities—can afford to dispense with periodical stocktaking. The necessity for this applies equally to a country or empire, particularly when recovering from a devastating war that has resulted in heavy liabilities and dislocated the accustomed routine of trade and commerce. We are all proud of the British Empire, embracing more than a quarter of the world's land area and a similar proportion of its inhabitants, but very many of us fail to realize the infinite variety and vast extent of the Empire's natural products, which are capable of being made self-sufficing.

The volumes of this Series pass in review the material resources of the Empire, and constitute—as it were—an imperial stocktaking. They deal with food and raw materials of every kind, summarize the present condition of inter-imperial trade, and indicate where further developments are possible.

At the present moment, when our great British Empire Exhibition is imminent, they should be of special interest both at home and overseas. It gives me great pleasure to recommend them to all those who have at heart the proper organization of the Empire's natural wealth.

A handwritten signature in dark ink, reading "Edward VII." with a stylized flourish at the end.



# GENERAL INTRODUCTION

BY

THE RIGHT HON. SIR ERIC GEDDES, G.C.B.

IN undertaking the preparation of this Series the Federation of British Industries has, I am convinced, rendered a really practical service to business men throughout the Empire.

Hitherto there has been no standard work of reference giving the information which ought to be in the possession of business men all over the world regarding the resources of Great Britain and the other countries of the Empire in the materials of industry.

It is true that there are some excellent monographs describing in general terms the resources of isolated parts of the Empire, and a very few dealing comprehensively with individual products, but, apart altogether from the fact that the sum total of the information contained in existing publications falls hopelessly far short of what is requisite, such information as exists is hardly prepared in a form adapted to the requirements of the practical man who wants neither a bare table of statistics about the products essential to him in his business nor a mere general description of the extent of the resources of a given country in those products. On the contrary, the business man wants information, not only as to the available supplies of his raw materials, but as to the quality of the supplies produced in different parts of the world, as to the amount of the undeveloped resources, as to the transport facilities, as to the local conditions of labour, etc., and as to the chances of present supplies available for import in this country being absorbed in the near future by local demands. In other words, he wants particulars of all those factors which have to be taken into account in the ordinary course of business, and he wants those particulars arranged in an accessible form.

The aim of this Series has been to give this information in this form, and thus to provide not only for our own use, but for the use of traders all over the world a compendious Buyers' Guide to our Imperial resources. I venture to think that the present is a very appropriate time for this undertaking. It is not only that all our thoughts are being turned towards the idea of Empire Trade and Empire Development by the great Exhibition which is shortly to be opened and which will be the most impressive demonstration of our Imperial productiveness that the world has yet seen. The whole trend of economic circumstances is forcing us in the same direction.

The world war has disastrously affected the Continent of Europe as a market for the manufactured goods of Great Britain and the products of the British Dominions. Even foreign countries which were neutral in the great struggle have suffered in the same way, though in a less degree. Our trade with the

## GENERAL INTRODUCTION

Far East and South America has suffered serious diminution, and though more than five years have now elapsed since the cessation of hostilities, the resumption of normal conditions seems but little nearer. Moreover foreign tariffs are rising higher and higher against us all over the world. Meanwhile our own productive capacity has been substantially increased and our population has grown to such an extent that we have now two million more mouths to feed and a million more men to employ than we had in 1914. It seems clear, therefore, that we need some reorientation of our commercial policy, and the obvious direction for this seems to be the cultivation of our own inheritance. A study of the facts shows that there is good hope in such a policy. Britons in all parts of the world are bound together by ties of sentiment and custom which neither distance nor difference of conditions can seriously weaken. Not only has the tremendous investment of British money in our Overseas Dominions bound us with a golden chain, there are a thousand invisible impulses always strengthening the bond. Even in 1913 our trade with the Empire was about 25 per cent (Imports) and 36 per cent (Exports) of our total world trade. The following tables show this in more detail with a comparison with the figures for the latest twelve months available. From these it will be seen that our Imports from Imperial sources show a substantial advance over pre-War, the Export figures remaining about the same.

PERCENTAGES OF IMPORTS FROM VARIOUS SOURCES

Consigned from	Oct. 1922 to Sept. 1923	Year 1913
British-India . . . . .	6.0	6.3
Self-governing Dominions . . . . .	16.3	13.3
Other British Countries (except Hong-Kong). . . . .	5.3	5.3
Europe . . . . .	33.2	40.4
United States . . . . .	19.6	18.4
South and Central America . . . . .	10.8	10.0
Other Countries . . . . .	8.8	6.3

PERCENTAGES OF EXPORTS (U.K. GOODS) TO VARIOUS DESTINATIONS

Consigned to	Oct. 1922 to Sept. 1923	Year 1913
British-India . . . . .	12.2	13.4
Self-governing Dominions . . . . .	18.0	17.5
Other British Countries (except Hong-Kong). . . . .	5.7	5.4
Europe . . . . .	34.2	34.4
United States . . . . .	8.0	5.6
South and Central America . . . . .	8.8	10.6
Other Countries . . . . .	13.1	13.1

The following table shows the areas and populations of the British Territories on the various Continents :

## GENERAL INTRODUCTION

9

### SUMMARY OF AREA AND POPULATION (1921-22)

	Area sq. miles.	Population.
Great Britain and Ireland . . . . .	121,633	47,308,000
Europe . . . . .	120	234,000
Asia . . . . .	2,123,418	332,772,000
Africa . . . . .	3,822,667	50,119,000
America . . . . .	4,009,996	111,142,000
Australasia . . . . .	3,278,917	7,795,000
	13,356,751	449,370,000

The following table shows the approximate purchases of British goods per head of population for the first three quarters of 1923 :

	<i>£ per head.</i>
India, British . . . . .	0·2
Federated Malay States . . . . .	0·5
Australia . . . . .	7·8
New Zealand . . . . .	12·3
Canada . . . . .	2·3
Hong-Kong . . . . .	7·7
Union of South Africa . . . . .	2·1

The most striking features here are the huge acreage, small population, and large volume of purchase per head of Australasia and the relatively huge populations and small volume of purchases in the Eastern territories, with Canada and South Africa occupying an intermediate position. I will recur to this contrast later.

Finally a few figures may be given indicative of the percentage of various important world supplies either produced or available within the Empire :

	1915	1921
Copper (long tons) . . . . .	100,000	46,000
Percentage of world production . . . . .	10·2	8·5
Lead (long tons) . . . . .	—	199,400
Percentage of world production . . . . .	—	22·9
Tin Ore (long tons) . . . . .	68,300	46,800
Percentage of world production . . . . .	53·9	42·2
	1913	1923
Wool, including alpaca, etc. (lbs.) . . . . .	5,414,067	14,077,339
Percentage of world production . . . . .	74·6	77·1

It is clear, therefore, that there is an almost unlimited field for expansion of our Empire trade ; whilst in many lines this possibility of a self-supporting Empire should be realizable. On the side of Great Britain the requisite Productive power already exists. Overseas the position is somewhat different, and it seems clear that the requisite development of the purchasing power of the Overseas Dominions can only be produced by a gradual development of the resources of those Dominions, the surest way to which will be an increase in our own consumption of their products. There are two distinct problems, one for the tropical and one for the temperate and sub-tropical countries.

In the former any substantial increase in the white population is hardly to be expected, since the bulk of the work of the country must in such climates always be done by the native races. The purchasing power of these territories can therefore only be developed by the steady development of their material



resources. This, of course, means recourse to British capital, if Great Britain is to get the greatest advantage from the development and if our Imperial idea is to be fulfilled. In our present economic condition this, of course, presents some difficulty, but if we can carry out this programme, there will follow a greater demand for British plant, machinery, shipping, rolling stock, etc., as well as a gradual increase in the consuming power of the natives.

In the temperate climates the quickest means to both our objectives lie in the speedy increase of the white populations. Nothing is more striking in the figures given above than the quantity of British goods purchased per head of these great peoples. But it is useless to attempt to stimulate emigration from this country to the Dominions unless there is a real demand for the services of the migrants when they arrive. Such a demand will only arise *pari passu* with the development of the resources of the country concerned.

The deduction to be drawn from the above considerations is obvious. How the required results are to be pursued is a more difficult question. This is no the place, nor am I the person, to embark on questions of political controversy. I will only point out that whatever method be adopted, accurate and comprehensive knowledge of the facts is absolutely essential. (All those who are engaged in business, either here or overseas, whether it be in finance, in production, in merchanting, in transport or in insurance, should be informed of what the different parts of our great Empire can produce, and the conditions under which production must take place and those under which the produce can be brought to market. There should be a general knowledge, too, of the amount of foreign competition, with which our products and materials have to contend.)

In all my experience, whether on the railways, in the turmoil of the Great War, in Government, or in commerce, I have been continually impressed with the vital importance of accurate and comprehensive statistical knowledge—and I am afraid, too often impressed with the difficulty of getting it.

This Series is an endeavour to supply such information regarding our Imperial Resources. It cannot, unfortunately, be maintained that the result are in every case all that one could wish. However, this very inadequacy is perhaps the clearest justification for the Series. The fact that complete information cannot be given shows how necessary it is that all available information should be collected and made public. Only in this way can attention be called to what is wanting and the deficiencies made good. If the Series proves as successful as I hope it may and believe that it will, it should become a permanent institution, and it should be possible gradually to make good what is now wanting in future issues, so that eventually we may have in it a standard work of reference which should be indispensable to all those interested or engaged in Imperial commerce or development, whether he be business man, student, or administrator



March, 1924.

# INTRODUCTORY REVIEW

BY

SIR SAMUEL BARROW, J.P.

THE subject of this volume, dealing mainly with the Leather Industry of the British Empire, is one of very particular interest to me, not only in my capacity as Chairman of the United Tanners' Federation, but on account of my personal business association over a period of more than forty-seven years. I have been closely concerned with the development of the Leather Industry, not only in the Mother Country, but also in Australia and India, and the effort made in this book to bring together in proper perspective the salient facts relating to the industry in all Empire Countries is one which is bound to be of great value, not only to those engaged in the industry, but also to those who have Imperial interests at heart. The Federation of British Industries and the publishers are to be congratulated on the conception of the scheme, while those engaged in the industry are fully aware that it would hardly be possible to obtain the services as editor of one better equipped for the purpose than Dr. Snow. In addition to a wide statistical experience, he was closely concerned with the Government control of the Leather Industry which was exercised in this country during the War, and has for the past five years been Manager of the United Tanners' Federation, and other kindred Associations connected with the trade in this country.

The part played by the Empire in supplying the world with the materials for leather production is shown by the fact that it contains about 40 per cent of the world's cattle, 40 per cent of the sheep, and nearly 50 per cent of the goats. India, in particular, is by far the biggest supplier of goatskins in the world, and, in addition, has a trade in raw hides of very large proportions. New Zealand also deserves special reference for the value of her supplies of sheep and lambskins. The Empire has also a virtual monopoly of three of the most important tanning materials—myrobalans, wattle bark, and gambier. In view of these facts it is hardly surprising that the industry has thrived in each of the Dominions, in addition to this country. Australia had, before the War, an export trade which, in proportion to her output, was the greatest of any in the world. Canada, in addition to going far to satisfy her own requirements, has also exported appreciable quantities. South Africa has, in recent years, developed her industry to a marked extent, while the importance of the Indian tanned kip goat and sheep trade is sufficiently emphasised by the fact that in the last year or two of the War the majority of the boots manufactured for the Army were made of upper leather from Indian tanned kips.

What effect has the War had on these industries? Can any permanent change, for better or for worse, yet be detected? The answer, I think, must be that, on the whole, the industry in most Empire countries (taking account

of the acute depression which has affected the trade throughout the world for the past three years) is relatively as strong, if not stronger, than in 1913 and the previous years. In this country, though certain sections of the trade have suffered severely by imports from countries with depreciated exchanges, native production, on the whole, supplies a greater proportion of the requirements than before the War. In sole leather this proportion is now over 80 per cent, and in glacé kid over 50 per cent. The export trade of this country has also been well maintained, in spite of difficulties in many markets. In Australia the immediate view may be inclined to pessimism, this being chiefly due, however, to the falling off in her export trade, which, as I have previously mentioned, was relatively the largest in the world. In Canada also the view is rather clouded by the reflection of the factors which have caused a special depression of the industry in the United States. In South Africa, however, the industry is going ahead at a good rate.

The essential features of the Leather Industry are that the main raw material used is, for the most part, a by-product, while the finished article has always to meet competition or potential competition from articles which may be substituted for leather. An increase in demand for leather reacts very slowly on the supplies of hides, so that prices, under an increase in demand, steadily rise, and this gives further opportunities for the use of substitute materials. The prosperity of the trade, accordingly, depends to a very great extent on stability and lowness of prices, and the future of prices of hides and skins is a question affecting intimately the welfare of the industry. In this connection I would particularly draw the reader's attention to the figures set out by Dr. Snow on page 52 of Section B. In reviewing prices in the years immediately preceding the War he shows that from 1903 to 1913 hide prices increased by no less than 70 per cent, while the general level of prices moved up by only 23 per cent in the same period. Whether the circumstances indicated by these facts have only been temporarily interrupted by the War or have permanently changed time alone will show. Unless the supplies of cattle, sheep, and goats throughout the world, however, are markedly increased, the march towards a higher standard of comfort (involving an increased demand for leather products) would seem to involve a corresponding upward movement in the general level of the prices of these materials.

The facts regarding the supplies of cattle and sheep and the requirements of the world for hides and skins are accordingly of the greatest possible importance to all connected with the industry. So far as the Empire is concerned there is no other channel through which those concerned with the future of the hide and skin business can study the information available as in this book. I would therefore confidently recommend all such not only to read the various sections of the book, but to keep it by them for reference.

SAMUEL BARROW.

*March, 1924.*

# TABLE OF CONTENTS

SECTION A	
SUMMARY OF THE POSITION OF THE VARIOUS COUNTRIES OF THE EMPIRE .	PAGE 15
SECTION B	
GREAT BRITAIN AND IRELAND . . . . .	35
SECTION C	
INDIA . . . . .	151
SECTION D	
CANADA . . . . .	187
SECTION E	
AUSTRALIA . . . . .	223
SECTION F	
NEW ZEALAND . . . . .	251
SECTION G	
SOUTH AFRICA . . . . .	279
SECTION H	
OTHER BRITISH COLONIES AND PROTECTORATES . . . . .	321
BIBLIOGRAPHY . . . . .	344
LIST OF TRADE ASSOCIATIONS . . . . .	351
INDEXES . . . . .	353



SUMMARY OF THE POSITION OF THE VARIOUS  
COUNTRIES OF THE EMPIRE

## LIST OF TABLES IN SECTION A

TABLE NO.	PAGE
A 1. IMPORTS OF HIDES AND SKINS FROM EMPIRE COUNTRIES TO THE UNITED STATES . . . . .	30
A 2. IMPORTS AND EXPORTS OF HIDES AND SKINS IN EMPIRE COUNTRIES	31
A 3. IMPORTS OF LEATHER FROM EMPIRE COUNTRIES TO THE UNITED STATES . . . . .	32
A 4. EXPORTS OF LEATHER TO EMPIRE COUNTRIES FROM THE UNITED STATES	32
A 5. IMPORTS OF LEATHER FROM EMPIRE COUNTRIES TO GERMANY .	33
A 6. EXPORTS OF LEATHER TO EMPIRE COUNTRIES FROM GERMANY .	33
A 7. IMPORTS OF LEATHER MANUFACTURES FROM EMPIRE COUNTRIES TO THE UNITED STATES . . . . .	34
A 8. EXPORTS OF LEATHER MANUFACTURES TO EMPIRE COUNTRIES FROM THE UNITED STATES	34

# LEATHER, HIDES, SKINS AND TANNING MATERIALS

## SECTION A

### SUMMARY OF THE POSITION OF THE VARIOUS COUNTRIES OF THE EMPIRE



THE leather industry of the Empire, unlike most other industries of importance, involves consideration of the position not only in Great Britain, but also in each of the Dominions—Australia, Canada, India, New Zealand, and South Africa—and in addition in many other parts of the Empire—Kenya, Nigeria, etc. • Naturally Great Britain has a leather production which, in actual magnitude, is greater than that of any other country in the Empire, but on account, not only of their supplies of raw materials but also of their actual tanning output, the Dominions named could, in proportion to their population, justly claim to be as important as the Mother Country. Great Britain with her supplies of hides and sheepskins and her leather industry has developed various industries engaged in the manufacture of all kinds of leather goods in which a substantial export trade is done. Canada, on a smaller scale, is similar in respect of the leather industry to Great Britain. India is the chief supplier of the world for goatskins, and for certain classes of hides. Australia is a supplier of hides and sheepskins, and has, in proportion to her population, the largest export trade in leather of any country. New Zealand is pre-eminent as the source of supply of certain classes of sheepskins in great demand. South Africa not only supplies hides, goatskins, and sheepskins, but has in the course of the present century developed a tanning material—wattle bark—now probably second to none in the world. Kenya is, in respect of the raw materials for the tanning industry, similar to South Africa in an early stage of development, while Nigeria not only supplies goatskins which, for quality, have a very high reputation, but is also a large supplier of hides. Other parts of the Empire contribute in a smaller way, though special reference should be made here to gambier coming from British Malaya. •

In this Section a summary of the position of the various parts of the Empire will be indicated under the following headings:—

- (a) Supplies of cattle, sheep, and goats. •
- (b) Producers, exporters, importers, and consumers of hides and skins and tanning materials.
- (c) Producers, exporters, importers, and consumers of leather.
- (d) Producers, exporters, importers, and consumers of leather goods.



## LEATHER, HIDES, AND SKINS

## EMPIRE SUPPLIES OF CATTLE, SHEEP, AND GOATS

For the purpose of showing the position of the whole Empire regarding supplies of cattle, sheep, and goats a table has been compiled relating to no fewer than forty Empire countries and eighty Foreign countries. This table is too long for inclusion in this book, but the following summary has been drawn up :—

	Last pre-War Figures (In Millions).			Latest post-War Figures (in Millions).		
	Cattle.	Sheep.	Goats.	Cattle.	Sheep.	Goats.
Empire Countries . . .	204	212	46	232	200	45
Foreign „ . . .	333	372	76	337	309	50
Total . . . . .	537	584	122	569	509	95
Percentage in Empire Countries	38	36	38	41	39	47

The above summary is an approximation to the truth and shows that about 40 per cent of the cattle, sheep, and goats of the world are in the British Empire, the post-War proportion being rather higher than the pre-War one. Cattle supplies increased in the period covered by the returns, particularly in the Empire countries. Sheep and goats, on the other hand, diminished considerably in numbers. It is possible that some of the decrease is attributable to faulty post-War returns, for example, in the case of Russia, but it is general throughout many of the individual countries, and in the aggregate amounts to more than 13 per cent.

The summary figures for the Empire countries referred to in detail in subsequent sections are as follows :—

	Last pre-War Figures (Thousands).			Latest post-War Figures (Thousands).		
	Cattle.	Sheep.	Goats.	Cattle.	Sheep.	Goats.
England and Wales . . .	5,757	17,207	—	5,553	13,907	—
Scotland . . . . .	1,247	6,801	—	1,145	6,671	—
Ireland . . . . .	4,993	3,621	246	5,197	3,708	261
India . . . . .	157,205	31,407	30,694	177,305	34,057	31,446
Canada . . . . .	6,656	2,129	—	10,206	3,676	—
Australia . . . . .	11,484	85,057	262	13,500	77,898	?
New Zealand . . . . .	2,020	23,996	—	3,273	24,222	—
South Africa . . . . .	5,797	30,657	11,763	8,557	31,730	7,837

The chief features of the above summary are (a) the substantial falling off in sheep in England and Wales—nearly 20 per cent; (b) an increase in cattle in India, partly due, possibly, to the better enumeration of buffaloes in the post-War census; (c) a marked increase in cattle supplies in Canada, Australia, New Zealand, and South Africa; and (d) a falling off in sheep in Australia. Comments on the individual figures are made in the appropriate Sections. The pre-eminent position of India in cattle and goat supplies is evident.

Very considerable difficulties are met with in an attempt to compare the

## SUMMARY OF THE POSITION

19

various countries of the Empire as producers and consumers of hides and skins, leather and leather goods. Very many more data are available for post-War years for all the countries concerned than existed before the War, but each country collects its information in a form prescribed by its own circumstances. Only for the post-War years is an attempt to make a full comparison justified, and even in this many gaps have to be filled in by estimates. In certain cases it is possible to ascertain consumption through information available of production and foreign trade, in others consumption figures are available and production has to be estimated. The method of deriving the figures referred to immediately will generally be clear from the details set out in later sections. The results, however, are approximate only, but are probably sufficiently accurate for a general view of the industry. A further difficulty in comparison arises from the facts that the values in the cases of Canada and India are in dollars and rupees respectively, and the period under review, 1921-22, was one of rapid movements in the sterling values of these currencies. The proper indices to take for the conversion of these to sterling is difficult to determine, and the figures are accordingly left in terms of the original currencies. For the purpose of making a rough comparison the following approximate factors, obtained by averaging the weekly quotations, may be used:—

India, 1921	.	.	.	Rupee = rs. 4½d.
„ 1922	.	.	.	Rupee = rs. 3½d.
Canada, 1921	.	.	.	£ = 4·30 dollars

### RAW MATERIAL PRODUCTION

The values of production of hides and skins and tanning materials in the chief Empire countries were as follows:—

Country.	Year.	Hides & Skins.	Tanning Materials.	Total.
		£	£	£
Great Britain and Ireland	1921	6,500,000	100,000	6,600,000
	1922	6,500,000	100,000	6,600,000
Canada	1921	1,860,000	120,000	1,980,000
India	1921	4,700,000	600,000	5,300,000
	1922	5,300,000	800,000	6,100,000
Australia	1920-21	—	340,000	—
	1921-22	4,600,000	360,000	4,960,000
New Zealand	1921	2,030,000	Small	2,030,000
South Africa	1921	1,600,000	600,000	2,260,000
	1922	2,260,000	1,040,000	3,300,000
Nigeria	1920	770,000	—	770,000
	1921	280,000	—	280,000
	1922	340,000	—	340,000
Kenya and Uganda	1920	230,000	10,000	240,000
	1921	80,000	10,000	90,000
	1922	80,000	10,000	90,000
Tanganyika	1921	30,000	—	30,000
	1922	70,000	—	70,000

## LEATHER, HIDES, AND SKINS

Probably the most interesting feature in this table is the fact that, apart from India, Great Britain is far and away the chief Empire country supplying hides and skins. The fact that this highly concentrated industrial country is one of the most important countries in supplying raw hides and sheepskins is frequently overlooked, but in Section B much information regarding this source of supply is given. It is difficult to determine an aggregate figure for all Empire countries owing to the varying periods employed and the fact that prices were changing rapidly during those periods. Within a considerable possible margin of error the total for a twelve-month period in 1921-22 was £25,000,000. It must be borne in mind, however, that the period in question was one of extremely depressed prices, and the figure stated would represent in 1919 a value of probably more than double.

The chief tanning-material producers are South Africa, India, Straits Settlements, and Australia, and the value of a year's production for the Empire in the period of depression, 1921-22, was about £2,500,000.

## RAW MATERIAL IMPORTS

The values of imports of hides and skins and tanning materials in the various Empire countries were as follows :—

Country.	Year.	Hides & Skins.	Tanning Material.	Total.
		£	£	£
Great Britain and Ireland	1921	4,400,000	1,400,000	5,800,000
	1922	6,900,000	1,800,000	8,700,000
Canada	1920-21	2,490,000	510,000	3,000,000
India	1921	Small	—	—
	1922	Small	—	—
Australia	1920-21	520,000	20,000	540,000
	1921-22	480,000	20,000	500,000
New Zealand	1921	20,000	70,000	90,000
	1922	20,000	50,000	70,000
South Africa	1921	Small	50,000	50,000
	1922	Small	30,000	30,000
Kenya and Uganda	1922	20,000	—	20,000
Aden	1920-21	370,000	—	370,000
	1921-22	350,000	—	350,000
British Malaya	1921	450,000	100,000	550,000
	1922	250,000	120,000	370,000

Apart from Great Britain, Canada, and Australia, the imports (excepting, perhaps, tanning materials into New Zealand) of hides and skins and tanning materials are inappreciable. The approximate totals for the Empire per annum in the period of depression, 1921-22, was about £10,000,000 for hides and skins and £2,500,000 for tanning materials.

## SUMMARY OF THE POSITION

21

Important information regarding the Empire's foreign trade in hides and skins is contained in Table A 1, in which details are shown of imports of the various classes of hides and skins into the United States from (a) Empire countries, and (b) all countries. About 30 per cent of the supplies of the United States come from Empire countries.

### • RAW MATERIAL EXPORTS

The values of exports of hides and skins and tanning materials in the various Empire countries were as follows :—

Country.	Year.	Hides and Skins.	Tanning Materials.	Total.
		£	£	£
Great Britain and Ireland	{ 1921	600,000	Nil.	600,000
	{ 1922	750,000	Nil.	750,000
Canada . . . . .	{ 1920-21	1,090,000	20,000	1,110,000
India . . . . .	{ 1921	3,300,000	500,000	3,800,000
	{ 1922	3,800,000	700,000	4,500,000
Australia . . . . .	{ 1920-21	1,630,000	40,000	1,670,000
	{ 1921-22	1,910,000	10,000	1,920,000
New Zealand . . . . .	{ 1921	1,550,000	Nil.	1,550,000
	{ 1922	1,510,000	Nil.	1,510,000
South Africa . . . . .	{ 1921	1,220,000	570,000	1,790,000
	{ 1922	1,050,000	1,000,000	2,950,000
Nigeria . . . . .	{ 1920	670,000	—	670,000
	{ 1921	260,000	—	260,000
	{ 1922	320,000	—	320,000
	{ 1920	230,000	10,000	240,000
Kenya and Uganda . . . . .	{ 1921	80,000	10,000	90,000
	{ 1922	80,000	10,000	90,000
Tanganyika . . . . .	{ 1921	30,000	—	30,000
	{ 1922	70,000	—	70,000
British Malaya . . . . .	{ 1921	100,000	250,000	350,000
	{ 1922	100,000	290,000	390,000
Aden . . . . .	{ 1920-21	470,000	—	470,000
	{ 1921-22	560,000	—	560,000

India and South Africa are the chief exporting countries, followed by Australia, New Zealand, and Canada, who all exceed £1,000,000 per annum in the period referred to. The total for 12 months during 1921-22 for Empire countries was about £11,500,000 for hides and £1,500,000 for tanning materials.

In Table A 2, the values of the imports and exports of hides in respect of every Empire country and Protectorate (including many not of sufficient importance to be dealt with in detail later in this volume) are shown, the pre-War and post-War figures being compared. No fewer than twenty-five of these countries are exporters of hides, the aggregate value pre-War being £19,700,000

## LEATHER, HIDES, AND SKINS

and post-War, £40,700,000. The corresponding imports were £9,700,000 and £21,900,000. Thus the Empire showed a surplus of exports of £10,000,000 per annum pre-War and £19,000,000 per annum post-War.

In order to give some idea of the international hide trade a table has been compiled (too large for reproduction) of the imports and exports of hides and skins by weight for over forty countries. This table indicates that in an average year over the period 1909-13 the weight of hides and skins moving from one country to another over the world was about 880,000 tons. The corresponding figure for the average of 1920 and 1921 was only 450,000 tons, but this figure has no doubt considerably increased since that date. The slaughter of Frigorifico and Saladero hides in Argentine (the chief hide exporting country) alone in 1923, for example, was at least 2,500,000 animals more than the average of 1920 and 1921, and this would account for an increase in hide supplies of about 70,000 tons.

## RAW MATERIAL CONSUMPTION

The values of consumption of hides and skins and tanning materia's in the various Empire countries were as follows :—

Country.	Year.	Hides and Skins.	Tanning Materials.	Total.
		£	£	£
Great Britain and Ireland	1921	10,300,000	1,500,000	11,800,000
	1922	12,700,000	1,900,000	14,600,000
Canada	1921	2,700,000	610,000	3,310,000
	1922	2,910,000	530,000	3,440,000
India	1921	1,400,000	100,000	1,500,000
	1922	1,500,000	100,000	1,600,000
Australia	1920-21	—	320,000	320,000
	1921-22	3,200,000	370,000	3,570,000
New Zealand	1921	540,000	60,000	600,000
	1920-21	440,000	80,000	520,000
South Africa	1920-21	440,000	80,000	520,000
	1921-22	310,000	70,000	380,000

The total consumption of hides and skins in the Empire per year in the period 1921-22 was about £20,000,000, and of tanning materials about £3,000,000. Direct comparison with the results of the quinquennial Census of Production of the United States is not possible, since the latter relate to the years 1914 and 1919. Making allowance, however, for the change in price level between 1919 and 1921-22 and also for the change in volume of production, it may be estimated in approximate terms that the consumption of hides and skins in the Empire is about 33 per cent of that in the United States.

## SUMMARY OF THE POSITION

23

### LEATHER PRODUCTION

The value of leather produced in the various Empire countries is as follows :—

Country.	Year.	Production.
		£
Great Britain and Ireland	1921	17,100,000
	1922	21,500,000
Canada . . . . .	1920	9,300,000
	1921	5,500,000
	1922	5,800,000
India <sup>1</sup> . . . . .	1921	8,700,000
	1922	12,000,000
Australia . . . . .	1921-22	5,450,000
New Zealand . . . . .	1921-22	580,000
South Africa . . . . .	1921	760,000
	1922	690,000

<sup>1</sup> Basis of calculation of doubtful value. Figures calculated approximately from estimate given in *Review of the Trade in Indian Hides, Skins and Leather* (Indian Munitions Board), p. 3.

In the aggregate these represent for a year's production during the depression period of 1921-22 nearly £42,000,000. The production of leather in the United States in 1914 and 1919 was \$350,000,000 and \$850,000,000 respectively, and making the allowances for change in price and volume of production, it would appear that the British production is rather less than 40 per cent of that of the United States.

### LEATHER IMPORTS AND EXPORTS

The value of leather imports and exports in the various Empire countries is as follows :—

Country.	Year.	Value of Exports.	Value of Imports.	Surplus of Imports or Exports.
		£	£	£
Great Britain and Ireland	1921	3,200,000	5,800,000	Imports 2,600,000
	1922	5,800,000	7,300,000	„ 1,500,000
Canada . . . . .	1920	1,790,000	1,980,000	Imports 190,000
	1921	930,000	950,000	„ 20,000
	1922	1,190,000	910,000	Exports 280,000
India . . . . .	1920-21	2,200,000	900,000	Exports 1,300,000
	1921-22	2,700,000	500,000	„ 2,200,000
Australia . . . . .	1921-22	740,000	270,000	Exports 470,000
New Zealand . . . . .	1921	100,000	210,000	Imports 110,000
	1922	50,000	340,000	„ 290,000
South Africa . . . . .	1921	Small	110,000	Imports 100,000
	1922	Small	170,000	„ 100,000
British Malaya . . . . .	1921	740,000	10,000	Exports 730,000
	1922	470,000	10,000	„ 460,000

## LEATHER, HIDES, AND SKINS

Australia and India are the only Empire countries with a marked surplus of exports. In the case of the latter country the exports are almost entirely of leather partially tanned, and requiring further treatment before use in the manufacture of leather goods.

A good deal of information regarding the Empire foreign trade in leather is obtained from the official returns of the United States and (for pre-War years) of Germany. Table A 3 gives details of imports into United States of various classes of leather from (a) Empire countries and (b) all countries. In 1913-14 two-thirds of the imports into the United States (the total of which was \$13,800,000) came from the Empire; in 1921-22 the corresponding proportion was nearly three-quarters. Table A 4 gives details of exports from the United States of various classes of leather to (a) Empire countries and (b) all countries. In 1913-14, 56 per cent went to Empire countries, while in 1921-22 the corresponding proportion was rather less than 50 per cent. The only figures conveniently available for Germany relate to 1912 and are collected together in Tables A 5 and 6. Of Germany's total import of leather, valued at £3,400,000 in that year, 45 per cent came from Empire countries. Germany's export in the same year was no less than £11,500,000 (of which nearly half was upper leather), of which, however, not much more than 25 per cent came to Empire countries.

## LEATHER CONSUMPTION

The value of the consumption of leather in the various Empire countries is as follows :—

Country.	Year.	Value of Consumption.
		£
Great Britain and Ireland	1921	19,700,000
	1922	23,000,000
Canada	1920	9,500,000
	1921	5,500,000
	1922	5,500,000
India <sup>1</sup>	1920-21	7,400,000
	1921-22	9,800,000
Australia	1921-22	5,000,000
New Zealand	1921	780,000
South Africa	1921	870,000
	1922	860,000

<sup>1</sup> Basis of calculation of doubtful value. See footnote on p. 23.

The approximate total for the whole Empire in a year during the period of depression in 1921-22 was £44,000,000.

## SUMMARY OF THE POSITION

25

### PRODUCTION OF LEATHER MANUFACTURES

The value of the production of leather goods (including boots and shoes) in the various Empire countries was as follows :—

Country.	Year.	Value of Production.
Great Britain and Ireland	1921	£ 34,000,000
	1922	43,000,000
Canada	1920-21	11,200,000
India <sup>1</sup>	1920-21	13,300,000
	1921-22	20,000,000
Australia	1921-22	12,600,000
New Zealand	1921-22	1,640,000
South Africa	1921	1,390,000
	1922	1,360,000

<sup>1</sup> Basis of calculation of doubtful value.

The approximate total for the whole Empire in one year of the period 1921-22 was about £82,000,000.

### IMPORTS AND EXPORTS OF LEATHER MANUFACTURES

The value of the imports and exports of leather goods (including boots and shoes) in the various Empire countries was as follows :—

Country.	Year.	Value of Exports.	Value of Imports.	Surplus of Imports or Exports.
Great Britain and Ireland	1921	£ 3,900,000	£ 1,800,000	Exports 2,100,000
	1922	4,200,000	2,400,000	„ 1,800,000
Canada	1920-21	440,000	790,000	Imports 350,000
India	1920-21	100,000	1,600,000	Imports 1,500,000
	1921-22	30,000	800,000	„ 770,000
Australia	1921-22	150,000	270,000	Imports 120,000
New Zealand	1921	Small	380,000	Imports 380,000
	1922	Small	630,000	„ 630,000
South Africa	1921	40,000	880,000	Imports 840,000
	1922	20,000	1,220,000	„ 1,200,000

The only country showing a surplus of exports was Great Britain, all the other Empire countries being, on the balance, substantial importers of leather goods. Some information on Empire foreign trade in leather manufactures



is shown in Tables A 7 and 8. The former gives the imports into the United States from (a) Empire countries and (b) all countries. The Empire countries, however, only supply a small proportion (not much more than 10 per cent) of United States imports, the bulk of which are leather gloves, for which France is the most important country of supply. Table A 8 shows that before the War about 30 per cent of the exports of leather goods from the United States came to Empire countries, but this proportion has fallen to 15 per cent.

#### CONSUMPTION OF LEATHER GOODS

The value of the consumption of leather manufactures in the various countries is as follows :—

Country.	Year.	Value of Consumption.
		£
Great Britain and Ireland	1921	31,900,000
	1922	40,800,000
Canada	1920-21	12,600,000
India <sup>1</sup>	1920-21	14,800,000
	1921-22	20,800,000
Australia	1921-22	12,700,000
New Zealand	1921-22	2,150,000
South Africa	1921	2,220,000
	1922	2,560,000

<sup>1</sup> Basis of calculation of doubtful value.

The aggregate for the countries named in 12 months during the depression period, 1921-22, was about £83,000,000.

#### FORM OF STATISTICS

It will be appropriate to refer in this section to the question of the comparability of the statistics relating to the industry in the different Empire countries. The actual data available are very far from presenting a homogeneous body of information such as might be inferred from the more or less orderly summary given in this book. One of the chief difficulties in attempting comparisons is the variation in practice in the period used. In Great Britain all annual statistics are collected for the calendar year. In the other parts of the Empire some annual statistics are available relating to the calendar, others for the year ending March 31st, and yet others for the year ending June 30th. In Australia, indeed, certain of the provincial governments use one period and others another period in connection with the compilation of exactly similar information. The determination of the particular period in any country depends upon factors much wider in application than the limits of one particular industry, and those concerned with a particular industry must accept

the position created by these wider considerations. It may be pointed out, however, that the greatest degree of comparability possible would follow from the general adoption of the calendar year throughout, and the general tendency throughout the world is in this direction. The United States figures, for example, are now available for the calendar year, though until recent years the fiscal period ending June 30th was employed.

The data necessary for a comprehensive view of the industry can be summarised under one or other of three main headings :—

- (a) Import and export statistics of the raw materials and finished products.
- (b) Census of the materials used in the industry.
- (c) Census of the products obtained from the industry.

In certain cases the form of the import statistics is determined entirely by the exigencies of the import tariff, and all goods subject to the same import duty are included under one heading in the statistical return, however dissimilar they, or the use to which they are put, may be.

A further source of difficulty arises through the use of different units in the trade returns. The returns for Great Britain show the imports and exports of upper leather and other forms of dressed leather by weight and value, and not by the unit invariably used in the industry itself, viz. the square foot. Most of the other countries of the Empire, however, as well as the United States and some Continental countries, use the trade unit, and there can be no doubt that, for the purposes of the industry itself, this is by far the most satisfactory course. It must not be overlooked, however, that the statistics of imports and exports of the goods relating to a particular industry are not necessarily compiled in the interests primarily of that industry, and that other interests have to be borne in mind. It is of some importance, for example, in Great Britain to know the actual weight of all imports and exports; during the freight difficulties in the War period the factor that really mattered was shipping weight, and this would not have been readily available if, for example, upper leather imports had been tabulated by area alone. The best solution, of course, would be to use always weight and value and in addition extra units where called for. This applies again to the imports and exports of hides and skins. In the returns of Great Britain hides and calfskins are returned by weight, while goatskins and pickled sheepskins (but not woolled) are returned by number. In trade reports published by brokers, hides are invariably returned by number. A further point which may be referred to is that of tanning extracts. These are of two main classes (a) solid and (b) liquid, and there is a great difference from the point of view of the trade itself between the importation of a certain weight of solid extract and the importation of an equal weight of liquid.

Bearing these points in mind, the form of return now used in Great Britain may serve, with a few additions and modifications, as the basis from which, if it were generally adopted throughout the Empire, where applicable, the greatest amount of information of value could be derived. As Great Britain, both in the raw materials and finished products of the industry, covers for all

## LEATHER, HIDES, AND SKINS

practical purposes the whole range covered by all the Empire countries, it would only be necessary to delete the items not applicable to make it appropriate for the other countries. The suggested model is as follows :—

		Weight.	Number.	Value.
(a) Cattle hides	{ Green.			
	{ Dry and dry salted.	"	"	"
	{ Wet salted.	"	"	"
Horse-hides	" "	"	"	"
Calfskins	" "	"	"	"
(b) Sheepskins	{ Woolled.	"	"	"
	{ Pickled (without wool).	"	"	"
Goatskins	{ Dry and dry salted.	"	"	"
	{ Wet salted.	"	"	"
Crude tanning materials		"	—	"
Tanning extracts, solid		"	—	"
Tanning extracts, liquid		"	—	"
(c) Sole leather (including offal)		"	—	"
(d) Rough hide leather (including offal)		"	—	"
Rough goatskin leather.		"	"	"
Rough sheepskin leather		"	"	"
Glacé kid upper leather		Square feet.		"
Chrome calf upper leather		"		"
Patent upper leather		"		"
Other chrome upper leather		"		"
Other upper leather		Weight.		"
" " "		Square feet.		"
Dressed hide leather, not upper		"		"
Dressed calf and kip leather, not upper		"		"
Dressed goat and sheep leather " "		"		"
Patent and enamelled leather " "		"		"

Many of the headings shown could be subdivided with considerable advantage if the returns could be reliably obtained. There is great danger that such subdivisions would defeat their own end since there is a good deal of elasticity in trade expressions and terminology. In the returns for Great Britain, for example, in recent years a subdivision of Rough Hide Leather, viz. Rough Tanned Kips, has been made, but it is certain that the leather which certain traders have been returning under the latter heading has by many others been returned under the former. The inclusion of the subdivision, accordingly, is a distinct disadvantage, and would lead those without access to other detailed information to wrong conclusions. Certain subdivisions of the above headings which would be of value if they could be properly attended to may, however, be referred to.

(a) The subdivision of "Buffalo-hides" under the heading "cattle hides." India already has this subdivision, buffalo-hides being a considerable item in her exports.

(b) The separation of lambskins from sheepskins.

## SUMMARY OF THE POSITION

29

(c) The subdivision of "Bellies and shoulders for sole leather" in the Sole Leather Class.

(d) The subdivision of "Rough tanned bellies and shoulders" in the Rough Hide Leather Class.

Turning next to the form of return appropriate for the determination of the materials used in the industry, practically nothing officially is available in Great Britain, but most of the Dominions collect a certain amount of information in the annual censuses of manufacturing production which are now taken, and that for South Africa offers probably the best basis for a model. With various additions and modifications the model form suggested is as follows:—

Cattle hides used	Number.	Value.
Horse-hides "	"	"
Calfskins "	"	"
Goatskins "	"	"
Sheepskins "	"	"
Crude tanning materials used	Weight.	"
(each sort used to be specified)		
Solid tanning extracts used	"	"
Liquid tanning extracts "	"	"
Chrome tanning materials "	"	"
Chemicals "	"	"
Oils and fats "	"	"
Dyes "	"	"

Considerable subdivision is possible in many of the above headings, e.g. Chemicals. In view of the fact, however, that alternative materials may be used by different firms and by the same firm at different times, the information obtained through further subdivision might be misleading.

It may be pointed out that, inasmuch as we are dealing with materials *used* and not materials *purchased* (there may often be a great difference between these), some little trouble may be needed to state values.

The most suitable form used by any of the Empire countries for a statistical description of the goods produced is that used by Canada in the annual report of the Dominion statistician on the leather industry. These reports are not published *in extenso*, but summaries of them are circulated to the Press. Table D 9 in Section D shows the form there used, and, making the necessary modifications to suit the special circumstances of each country, this table may be referred to as indicating a suitable model for trade purposes for production statistics.

## LEATHER, HIDES, AND SKINS

TABLE A 1

UNITED STATES.—IMPORTS OF HIDES AND SKINS FROM EMPIRE COUNTRIES.

DOLLARS (000)

Article.	1913-14			1921		
	From Empire Countries.	From All Countries.	Per cent from Empire.	From Empire Countries.	From All Countries.	Per cent from Empire.
Dry buffalo-hides . . . .	2,985	3,074	99	47	358	13
Dry calfskins . . . . .	324	11,799	3	563	3,271	17
Green wet-salted cattle hides . .	2,399	11,203	21	1,486	7,092	21
Dry cattle hides . . . . .	2,029	18,083	11	117	2,349	5
Green and wet-salted cattle hides	9,645	34,099	28	2,527	20,910	12
Dry goatskins . . . . .	7,393	19,037	38	8,623	22,374	39
Green and wet-salted goatskins	3,098	3,154	99	1,418	1,497	99
Dry horse-hides . . . . .	4	1,619	—	37	97	38
Green and wet-salted horse hides	155	515	30	143	270	53
Kangaroo-hides . . . . .	898	898	100	283	283	100
Dry sheepskins . . . . .	2,778	6,166	45	1,655	3,328	47
Pickled sheepskins . . . . .	5,426	6,427	85	3,569	4,686	77
All other hides and skins (except furs) . . . . .	1,539	3,836	40	159	1,035	15
Raw hide, cuttings and glue stock . . . . .	695	2,159	32	544	1,595	34
Total hides and skins . . . .	39,368	122,069	32	21,171	69,145	30

# SUMMARY OF THE POSITION

31

TABLE A 2

IMPORTS AND EXPORTS OF HIDES AND SKINS IN EMPIRE COUNTRIES

VALUE £(000).

Country.	Empire Countries and Protectorates.			
	Nearest 12 months previous to the War.		Nearest 12 months after the War.	
	Imports.	Exports.	Imports.	Exports.
India . . . . .	432	7,815	411	21,407
Straits Settlements . . . . .	490	674	510	857
Federated Malay States . . . . .	—	15	—	25
Ceylon . . . . .	—	62	—	108
Australia . . . . .	280	4,186	697	2,508
New Zealand . . . . .	—	1,062	—	2,587
South Africa . . . . .	—	2,011	—	4,979
Rhodesia . . . . .	—	28	—	142
East Africa and Uganda . . . . .	—	366	—	997
Zanzibar Protectorate . . . . .	6	13	28	32
Somaliland . . . . .	—	10	—	15
Egypt . . . . .	—	174	—	713
Sudan . . . . .	—	23	—	121
Nigeria . . . . .	—	166	—	1,117
Gold Coast . . . . .	—	24	—	11
Gambia . . . . .	—	19	—	8
Canada . . . . .	2,772	1,517	4,657	4,087
Newfoundland . . . . .	—	66	—	82
Jamaica . . . . .	—	23	—	33
Barbados . . . . .	—	5	—	8
Trinidad and Tobago . . . . .	139	159	214	227
Bermuda . . . . .	—	3	—	—
Malta . . . . .	—	15	—	14
Cyprus . . . . .	4	14	12	26
United Kingdom . . . . .	5,600	1,230	15,400	600



## LEATHER, HIDES, AND SKINS

TABLE A 3

UNITED STATES.—IMPORTS OF LEATHER FROM EMPIRE COUNTRIES

DOLLARS (000)

Article.	1913-14			1921-22.		
	From Empire Countries.	From All Countries.	Per cent from Empire.	From Empire Countries.	From All Countries.	Per cent from Empire.
Belting and sole leather . . .	3,467	3,632	96	906	1,115	81
Glove leather . . . . .	81	2,209	—	21	181	11
Rough tanned goatskins . . .	2,096	2,249	95	196	213	92
Chamois . . . . .	36	74	49	17	78	22
Calf and kid upper leather . .	—	—	—	838	1,311	63
Goat and kid upper leather . .	—	—	—	19	195	10
Sheep and lamb upper leather .	1,584	2,622	61	49	158	31
All other upper leather . . .	—	—	—	537	783	69
All other leather . . . . .	1,677	3,003	55	3,750	4,565	83
Total . . . . .	8,941	13,789	65	6,333	8,599	74

TABLE A 4

UNITED STATES.—EXPORTS OF LEATHER TO EMPIRE COUNTRIES

DOLLARS (000)

Article.	1913-14			1921-22		
	To Empire Countries.	To All Countries.	Per cent to Empire.	To Empire Countries.	To All Countries.	Per cent to Empire.
For carriages and automobiles .	44	74	60	45	166	27
Glove leather . . . . .	353	359	100	600	627	97
Patent leather . . . . .	616	1,676	37	3,028	6,921	44
Sole leather . . . . .	6,323	7,476	85	1,412	4,968	29
Calf upper leather . . . . .	666	2,175	30	2,530	4,476	57
Kid upper leather . . . . .	7,177	16,811	44	5,306	8,463	63
Other upper leather . . . . .	2,766	3,904	71	1,540	4,138	38
All other leather . . . . .	2,140	3,314	65	887	1,974	45
Total . . . . .	20,085	35,789	58	15,348	31,733	49

# SUMMARY OF THE POSITION

33

TABLE A 5

GERMANY.—IMPORTS OF LEATHER FROM EMPIRE COUNTRIES  
VALUE £(000)

Article.	1912		Per cent from Empire.
	From Empire Countries.	From All Countries.	
Rough tanned sheep . . . .	729	1,124	65
Rough tanned goat . . . .	415	427	97
Upper leather . . . . .	18	80	23
Sole leather . . . . .	2	155	1
Belting leather . . . . .	78	176	44
Leather for furniture, bags, etc. . . .	12	48	25
Calf leather . . . . .	9	23	39
Cow leather . . . . .	11	41	27
Glacé leather for gloves . . . .	1	18	6
Wash leather for gloves . . . .	3	15	20
Dressed goat and kid . . . .	12	362	3
Other sheep and lamb leather . . . .	164	735	22
Varnished leather . . . . .	35	84	42
Other leather . . . . .	67	118	57
Total . . . . .	1,556	3,406	46

TABLE A 6

GERMANY.—EXPORTS OF LEATHER TO EMPIRE COUNTRIES  
VALUE £(000)

Article.	1912		Per cent to Empire.
	To Empire Countries.	To All Countries.	
Upper leather . . . . .	2,197	5,461	40
Sole leather . . . . .	217	800	27
Belting leather . . . . .	5	39	13
Leather for furniture, bags, etc. . . .	29	560	5
Horse-hide leather . . . . .	5	49	10
Glacé leather for gloves . . . .	4	622	—
Wash leather for gloves . . . .	11	73	15
Other goat and kidskin leather . . . .	179	1,255	14
Other sheep and lambskin leather . . . .	35	418	8
Varnished calfskin . . . . .	140	765	19
Varnished cow, sheep, and goat . . . .	219	1,267	17
Other leather . . . . .	4	190	—
Total . . . . .	3,045	11,499	28



## LEATHER, HIDES, AND SKINS

TABLE A 7

UNITED STATES.—IMPORTS OF LEATHER MANUFACTURES FROM EMPIRE COUNTRIES  
DOLLARS (000)

Article.	1913-14			1921-22		
	From Empire Countries.	From All Countries.	Per cent from Empire.	From Empire Countries.	From All Countries.	Per cent from Empire.
Boots and shoes . . .	272	407	67	396	573	69
Gloves . . . . .	847	9,722	9	398	13,190	3
All other manufactures .	430	1,147	38	911	1,702	43
Total . . . . .	1,549	11,276	14	1,705	15,465	11

TABLE A 8

UNITED STATES.—EXPORTS OF LEATHER MANUFACTURES TO EMPIRE COUNTRIES  
DOLLARS (000)

Article.	1913-14			1921-22		
	To Empire Countries.	To All Countries.	Per cent to Empire.	To Empire Countries.	To All Countries.	Per cent to Empire.
Belting . . . . .	241	880	27	384	1,476	26
Children's boots and shoes	312	1,637	19	113	3,343	3
Men's boots and shoes .	2,423	10,118	24	668	10,319	4
Women's boots and shoes	2,953	6,112	48	1,838	5,016	37
Slippers . . . . .	323	362	89	56	97	58
Harness and saddlery .	270	786	34	78	697	11
Other manufactures .	1,323	1,881	73	1,136	1,868	63
Total . . . . .	7,845	21,776	39	4,273	28,816	15

SECTION B  
GREAT BRITAIN AND IRELAND

# LIST OF TABLES IN SECTION B

## UNITED KINGDOM

TABLE NO.		
B 1.	IMPORTS OF HIDES AND SKINS ACCORDING TO SOURCE OF ORIGIN, EMPIRE COUNTRY OR FOREIGN COUNTRY (QUANTITIES), BEING SUMMARY COMPILED FROM OFFICIAL TABLES OF IMPORTS .	98
B 2.	IMPORTS OF HIDES AND SKINS ACCORDING TO SOURCE OF ORIGIN, EMPIRE COUNTRY OR FOREIGN COUNTRY (VALUES), BEING SUMMARY COMPILED FROM OFFICIAL TABLES OF IMPORTS .	98
B 3.	IMPORTS OF TANNING MATERIALS ACCORDING TO SOURCE OF ORIGIN, EMPIRE COUNTRY OR FOREIGN COUNTRY (QUANTITIES), BEING SUMMARY COMPILED FROM OFFICIAL TABLES OF IMPORTS .	99
B 4.	IMPORTS OF TANNING MATERIALS ACCORDING TO SOURCE OF ORIGIN, EMPIRE COUNTRY OR FOREIGN COUNTRY (VALUES), BEING SUMMARY COMPILED FROM OFFICIAL TABLES OF IMPORTS .	99
B 5.	IMPORTS OF LEATHER ACCORDING TO SOURCE OF ORIGIN, EMPIRE COUNTRY OR FOREIGN COUNTRY (QUANTITIES), BEING SUMMARY COMPILED FROM OFFICIAL TABLES OF IMPORTS .	100
B 6.	IMPORTS OF LEATHER, ACCORDING TO SOURCE OF ORIGIN, EMPIRE COUNTRY OR FOREIGN COUNTRY (VALUES), BEING SUMMARY COMPILED FROM OFFICIAL TABLES OF IMPORTS .	100
B 7.	IMPORTS OF LEATHER MANUFACTURES ACCORDING TO SOURCE OF ORIGIN, EMPIRE COUNTRY OR FOREIGN COUNTRY (QUANTITIES), BEING SUMMARY COMPILED FROM OFFICIAL TABLES OF IMPORTS .	101
B 8.	IMPORTS OF LEATHER MANUFACTURES ACCORDING TO SOURCE OF ORIGIN, EMPIRE COUNTRY OR FOREIGN COUNTRY (VALUES), BEING SUMMARY COMPILED FROM OFFICIAL TABLES OF IMPORTS .	101
B 9.	OUTPUT OF TANNERS, CURRIERS, LEATHER DRESSERS, AND LEATHER BELTING MANUFACTURERS, CENSUS OF PRODUCTION, 1907 .	102
B 10.	PERSONS EMPLOYED IN LEATHER AND ALLIED INDUSTRIES, CENSUS OF PRODUCTION, 1907 .	103
B 11.	VALUE OF MATERIALS USED, OUTPUT, ETC., IN LEATHER AND ALLIED INDUSTRIES, CENSUS OF PRODUCTION, 1907 .	103
B 12.	NUMBERS OF CATTLE, SHEEP, HORSES, PRE-WAR AND 1922 .	104
B 13.	NUMBERS OF LIVE STOCK IN IRELAND .	104
B 14.	SUMMARY OF STATISTICS COLLECTED WEEKLY IN 1917 AND 1918 REGARDING SUPPLIES OF CATTLE HIDES AND SKINS, NUMBERS IN VARIOUS CLASSES .	105
B 15.	SUMMARY OF STATISTICS COLLECTED WEEKLY IN 1917 AND 1918 REGARDING SUPPLIES OF CATTLE HIDES AND SKINS, MONTHLY VARIATION IN NUMBERS .	105

# LIST OF TABLES IN SECTION B

37

	PAGE
16. DETAILS OF MONTHLY SUPPLIES OF SHEEPSKINS, 1917-18	106
17. EXPORTS OF HIDES AND SKINS ACCORDING TO COUNTRY OF DESTINATION, EMPIRE COUNTRY OR FOREIGN COUNTRY (QUANTITY AND VALUE)	106
18. TRANSIT TRADE IN HIDES	107
19. TRANSIT TRADE IN GOATSKINS	109
20. TRANSIT TRADE IN SHEEP AND LAMBSKINS	110
21. CONSUMPTION OF VEGETABLE TANNING MATERIALS	111
22. HIDE AND SKIN IMPORTS BY PORTS (QUANTITIES)	112
23. HIDE AND SKIN IMPORTS BY PORTS (VALUES)	112
24. SOLE LEATHER PRODUCTION IN 1917; PARTICULARS OF BENDS AND OFFAL PRODUCED	113
25. EXPORTS OF LEATHER FROM THE UNITED STATES TO UNITED KINGDOM (QUANTITIES)	114
26. EXPORTS OF LEATHER FROM THE UNITED STATES TO UNITED KINGDOM (VALUES)	114
27. EXPORTS OF LEATHER ACCORDING TO COUNTRY OF DESTINATION, EMPIRE COUNTRY OR FOREIGN COUNTRY (QUANTITIES), BEING SUMMARY COMPILED FROM THE OFFICIAL TABLES OF EXPORTS	115
28. EXPORTS OF LEATHER ACCORDING TO COUNTRY OF DESTINATION, EMPIRE COUNTRY OR FOREIGN COUNTRY (VALUES), BEING SUMMARY COMPILED FROM THE OFFICIAL TABLES OF EXPORTS	115
29. EXPORTS OF LEATHER MANUFACTURES ACCORDING TO COUNTRY OF DESTINATION, EMPIRE COUNTRY OR FOREIGN COUNTRY (QUANTITIES), BEING SUMMARY COMPILED FROM THE OFFICIAL TABLES OF EXPORTS	116
30. EXPORTS OF LEATHER MANUFACTURES ACCORDING TO COUNTRY OF DESTINATION, EMPIRE COUNTRY OR FOREIGN COUNTRY (VALUES), BEING SUMMARY COMPILED FROM OFFICIAL TABLES OF EXPORTS	116

## IMPORT AND RE-EXPORT STATISTICS FROM OFFICIAL SOURCES

31. WET CALFSKINS	IMPORTS	117
32. WET HIDES	IMPORTS	117
33. WET HIDES	RE-EXPORTS	118
34. WET CALFSKINS	RE-EXPORTS	118
35. DRY AND DRY-SALTED CALFSKINS	IMPORTS	118
36. DRY AND DRY-SALTED HIDES	IMPORTS	119
37. DRY AND DRY-SALTED CALFSKINS	RE-EXPORTS	120
38. DRY AND DRY-SALTED HIDES	RE-EXPORTS	120
39. SHEEPSKINS WITH WOOL	IMPORTS	120
40. SHEEPSKINS WITHOUT WOOL	IMPORTS	121
41. SHEEPSKINS WITH WOOL	RE-EXPORTS	121
42. SHEEPSKINS WITHOUT WOOL	RE-EXPORTS	121
43. GOATSKINS	IMPORTS	121

## LEATHER, HIDES, AND SKINS

TABLE NO.		PAGE
B 44.	UNSPECIFIED ANIMAL SKINS (1921-22 ONLY) . . . . . IMPORTS	122
B 45.	GOATSKINS . . . . . RE-EXPORTS	122
B 46.	UNSPECIFIED ANIMAL SKINS (1921-22 ONLY) . . . . . RE-EXPORTS	122
B 47.	UNSPECIFIED ANIMAL SKINS (1913 ONLY) . . . . . RE-EXPORTS	123
B 48.	TANNING BARKS . . . . . IMPORTS AND RE-EXPORTS	123
B 49.	SUMACH . . . . . IMPORTS AND RE-EXPORTS	123
B 50.	GAMBIER . . . . . IMPORTS AND RE-EXPORTS	123
B 51.	MYROBALANS . . . . . IMPORTS AND RE-EXPORTS	124
B 52.	VALONIA . . . . . IMPORTS AND RE-EXPORTS	124
B 53.	UNSPECIFIED CRUDE TANNING MATERIALS	124
B 54.	OAK EXTRACT (1921 AND 1922 ONLY) . . . . . IMPORTS AND RE-EXPORTS	125
B 55.	CHESTNUT EXTRACT (1921 AND 1922 ONLY) . . . . . IMPORTS AND RE-EXPORTS	125
B 56.	QUEBRACHO EXTRACT (1921 AND 1922 ONLY) . . . . . IMPORTS AND RE-EXPORTS	125
B 57.	UNSPECIFIED TANNING EXTRACTS . . . . . IMPORTS AND RE-EXPORTS	125
B 58.	ROUGH-TANNED HIDE LEATHER . . . . . IMPORTS AND RE-EXPORTS	126
B 59.	SOLE LEATHER (1921 AND 1922 ONLY)	127
B 60.	ROUGH-TANNED OX- AND COW-HIDE LEATHER (1921 AND 1922 ONLY) . . . . . IMPORTS AND RE-EXPORTS	127
B 61.	ROUGH-TANNED CALFSKINS . . . . . IMPORTS AND RE-EXPORTS	127
B 62.	ROUGH-TANNED KIPS (1921 AND 1922 ONLY) . . . . . IMPORTS AND RE-EXPORTS	128
B 63.	ROUGH-TANNED HIDE LEATHER, NOT OTHERWISE SPECIFIED (1921 AND 1922 ONLY) . . . . . IMPORTS AND RE-EXPORTS	128
B 64.	ROUGH-TANNED GOATSKINS . . . . . IMPORTS AND RE-EXPORTS	128
B 65.	ROUGH-TANNED SHEEPSKINS . . . . . IMPORTS AND RE-EXPORTS	129
B 66.	UNSPECIFIED ROUGH-TANNED SKINS . . . . . IMPORTS AND RE-EXPORTS	129
B 67.	BOX AND WILLOW CALF . . . . . IMPORTS AND RE-EXPORTS	129
B 68.	GLACÉ KID . . . . . IMPORTS AND RE-EXPORTS	130
B 69.	PATENT AND JAPANNED LEATHER . . . . . IMPORTS AND RE-EXPORTS	130
B 70.	UNSPECIFIED UPPER LEATHER (1921 AND 1922 ONLY) . . . . . IMPORTS AND RE-EXPORTS	130
B 71.	UNSPECIFIED DRESSED LEATHER (1913 ONLY) . . . . . IMPORTS AND RE-EXPORTS	131
B 72.	UNSPECIFIED DRESSED LEATHER (1921 AND 1922 ONLY) . . . . . IMPORTS AND RE-EXPORTS	131
B 73.	CALF AND KIP DRESSED LEATHER, OTHER THAN UPPER LEATHER (1921 AND 1922 ONLY) . . . . . IMPORTS AND RE-EXPORTS	131

# LIST OF TABLES IN SECTION B

39

TABLE NO.

PAGE

B 74.	SHEEP, GOAT, AND KID-DRESSED LEATHER, OTHER THAN UPPER LEATHER (1921 AND 1922 ONLY)	IMPORTS AND RE-EXPORTS	132
B 75.	LEATHER BOOTS AND SHOES (1913 ONLY)	IMPORTS AND RE-EXPORTS	132
B 76.	LEATHER BOOTS AND SHOES: MEN'S (1921 AND 1922 ONLY)	IMPORTS AND RE-EXPORTS	132
B 77.	LEATHER BOOTS AND SHOES: WOMEN'S AND CHILDREN'S (1921 AND 1922 ONLY)	IMPORTS AND RE-EXPORTS	133
B 78.	BOOTS, SHOES, AND SLIPPERS OTHER THAN LEATHER AND RUBBER	IMPORTS AND RE-EXPORTS	133
B 79.	LEATHER GLOVES	IMPORTS AND RE-EXPORTS	133
B 80.	LEATHER TRUNKS AND BAGS (1921 AND 1922 ONLY)	IMPORTS AND RE-EXPORTS	134
B 81.	SADDLERY AND HARNESS (1921 AND 1922 ONLY)	IMPORTS AND RE-EXPORTS	134
B 82.	FANCY LEATHER GOODS (1921 AND 1922 ONLY)	IMPORTS AND RE-EXPORTS	134
B 83.	LEATHER SPORTS GOODS (1921 AND 1922 ONLY)	IMPORTS AND RE-EXPORTS	134
B 84.	ARTIFICIAL LEATHER GOODS (1921 AND 1922 ONLY)	IMPORTS AND RE-EXPORTS	135
B 85.	UNSPECIFIED LEATHER MANUFACTURES	IMPORTS AND RE-EXPORTS	135
B 86.	LEATHER BELTING	IMPORTS AND RE-EXPORTS	135
B 87.	WOVEN, HAIR, OR COTTON MACHINERY BELTING	IMPORTS AND RE-EXPORTS	135
B 88.	MACHINERY BELTING (OTHER THAN LEATHER, WOVEN HAIR, OR COTTON)	IMPORTS AND RE-EXPORTS	136

## EXPORT STATISTICS FROM OFFICIAL SOURCES

B 89.	RAW HIDES FROM IMPORTED CATTLE SLAUGHTERED IN U.K.	EXPORTS	136
B 90.	RAW HIDES AND CALFSKINS	EXPORTS	136
B 91.	SHEEP- AND LAMBSKINS WITH WOOL ON	EXPORTS	136
B 92.	PICKLED SHEEP- AND LAMBSKINS	EXPORTS	137
B 93.	QUEBRACHO EXTRACT (1921 AND 1922 ONLY)	EXPORTS	137
B 94.	TANNING EXTRACTS, OTHER THAN QUEBRACHO (1921 AND 1922 ONLY)	EXPORTS	137
B 95.	UNDRESSED LEATHER (1913 ONLY)	EXPORTS	138
B 96.	SOLE LEATHER (1921 AND 1922 ONLY)	EXPORTS	138
B 97.	UNDRESSED HIDE LEATHER (1921 AND 1922 ONLY)	EXPORTS	138
B 98.	UNDRESSED CALF LEATHER (1921 AND 1922 ONLY)	EXPORTS	139
B 99.	UNDRESSED KIP LEATHER (1921 AND 1922 ONLY)	EXPORTS	139
B 100.	UNDRESSED HIDE LEATHER, NOT OTHERWISE SPECIFIED (1921 AND 1922 ONLY)	EXPORTS	139

## LEATHER, HIDES, AND SKINS

TABLE NO.		PAGE
B 101.	UNDRESSED GOATSKIN LEATHER (1921 AND 1922 ONLY)	EXPORTS 139
B 102.	UNDRESSED SHEEP LEATHER (1921 AND 1922 ONLY)	EXPORTS 139
B 103.	UNDRESSED SKIN LEATHER, NOT OTHERWISE SPECIFIED (1921 AND 1922 ONLY)	EXPORTS 140
B 104.	PATENT AND JAPANNED LEATHER	EXPORTS 140
B 105.	BOX AND WILLOW CALF UPPER LEATHER (1921 AND 1922 ONLY)	EXPORTS 140
B 106.	GLACÉ KID UPPER LEATHER (1921 AND 1922 ONLY)	EXPORTS 140
B 107.	UPPER LEATHER, NOT OTHERWISE SPECIFIED (1921 AND 1922 ONLY)	EXPORTS 141
B 108.	DRESSED HIDE, CALF, AND KIP LEATHER, OTHER THAN UPPER LEATHER (1921 AND 1922 ONLY)	EXPORTS 141
B 109.	DRESSED SHEEP, GOAT, AND KID LEATHER (OTHER THAN UPPER LEATHER) (1921 AND 1922 ONLY)	EXPORTS 141
B 110.	DRESSED LEATHER (NOT OTHERWISE SPECIFIED)	EXPORTS 142
B 111.	LEATHER BOOTS AND SHOES (1913 ONLY)	EXPORTS 142
B 112.	MEN'S LEATHER BOOTS AND SHOES (1921 AND 1922 ONLY)	EXPORTS 143
B 113.	WOMEN'S AND CHILDREN'S LEATHER BOOTS AND SHOES (1921 AND 1922 ONLY)	EXPORTS 143
B 114.	LEATHER GLOVES	EXPORTS 143
B 115.	LEATHER BELTING	EXPORTS 143
B 116.	WOVEN HAIR OR COTTON MACHINERY BELTING	EXPORTS 144
B 117.	MACHINERY BELTING (NOT OTHERWISE SPECIFIED)	EXPORTS 144
B 118.	SADDLERY AND HARNESS	EXPORTS 144
B 119.	TRUNKS, BAGS, AND OTHER SOLID LEATHER GOODS (1921 AND 1922 ONLY)	EXPORTS 145
B 120.	FANCY LEATHER GOODS (1921 AND 1922 ONLY)	EXPORTS 145
B 121.	FANCY ARTIFICIAL LEATHER GOODS (1921 AND 1922 ONLY)	EXPORTS 145
B 122.	LEATHER SPORTS GOODS (1921 AND 1922 ONLY)	EXPORTS 145
B 123.	LEATHER MANUFACTURES (NOT OTHERWISE SPECIFIED)	EXPORTS 145
B 124.	MATERIALS (OTHER THAN TANNING MATERIALS) CONSUMED BY LEATHER PRODUCERS, 1917	146
B 125.	EXPORTS FROM IRELAND (1913 AND 1919)	147
B 126.	IMPORTS INTO IRELAND (1913 AND 1919)	147

## SECTION B

### GREAT BRITAIN AND IRELAND

A GREAT deal of the information regarding the leather and allied industries in Great Britain and Ireland relates to the combined countries and cannot be shown for them separately. Until May, 1923, the import and export statistics issued by the British Board of Trade monthly and annually referred to trade between Great Britain and Ireland with other countries, but since that date the trade between Great Britain and the Irish Free State has been included as British foreign trade, and caution is required, accordingly, in the comparison of the figures for 1923 with those for previous years. For example, the Board of Trade Monthly Returns for December, 1923, gave in parallel columns the total exports of boots in 1922 and 1923 as 5,900,000 pairs and 9,550,000 pairs respectively, and the inference has been drawn that the British boot exports are rapidly moving towards the pre-War figure (17,500,000 pairs). The 1923 figures, however, include 2,600,000 pairs exported from Great Britain to the Irish Free State, for which there was no corresponding figure in 1922, and the increase accordingly between 1922 and 1923 was only about 1,000,000 pairs and not 3,600,000 pairs. Most of the statistics included in this Section will, however, refer to the pre-1923 period, and such figures will be referred to as those for the United Kingdom.

### SUMMARY OF RAW MATERIAL POSITION

Tables B 1 to 8 set out in summary form, both for quantities and value, the general situation (both pre-War and post-War) as regards supplies required by the leather and leather-goods industries in the United Kingdom of imported goods. Particulars of native supplies are dealt with in detail later. The tables referred to give the facts as to source of origin according to (a) Empire countries; (b) Foreign countries of (1) hides and skins, (2) tanning materials, (3) leather, and (4) leather manufactures.

Owing to the fact that there is a considerable re-export trade in raw hides and skins and tanning materials, these tables do not readily enable a bird's-eye view to be obtained indicating the relative degree of dependence of the industry as a whole on Empire and Foreign countries. It is not possible completely to show for each country of origin the amount of re-export of each class of material, but fairly satisfactory estimates may be made. Bringing into account native supplies the position of Great Britain regarding the raw material of the leather industry can be summarised as follows:—



## LEATHER, HIDES, AND SKINS

SUPPLIES OF MATERIAL USED FOR THE PRODUCTION OF  
LEATHER IN THE UNITED KINGDOM

	VALUE £(000)		
	1913	1921	1922
(a) Native supplies—			
Hides and skins (less exports) .	4,800	5,900	5,750
(b) Empire supplies—			
Wet hides . . . . .	879	366	474
Dry hides . . . . .	1,563	859	882
Sheepskins . . . . .	2,668	1,752	2,921
Goatskins . . . . .	1,247	649	1,125
Tanning materials . . . . .	665	518	765
Rough tanned leather requiring further treatment . . . . .	3,135	1,878	2,579
Less estimated re-exports of materials imported from the Empire . . . . .	5,600	3,450	4,000
Total supplies imported from Empire (approximate) . . . . .	4,500	2,600	4,700
(c) Foreign supplies—			
Wet hides . . . . .	2,282	2,063	1,767
Dry hides . . . . .	1,124	465	1,071
Sheepskins . . . . .	446	337	531
Goatskins . . . . .	241	70	71
Tanning materials . . . . .	1,188	870	991
Rough tanned leather requiring further treatment . . . . .	230	270	350
Less estimated re-exports of materials imported from foreign countries . . . . .	1,300	900	800
Total supplies imported from foreign countries (approximate) . . . . .	4,200	3,200	4,000
Grand total of supplies . . . . .	13,500	11,700	14,450
Percentage Native supplies . . . . .	36	50	40
" Empire " . . . . .	33	22	33
" Foreign " . . . . .	31	28	27

Allowing for some degree of error in the estimates, it is probably not far from the truth to say that before the War the British leather industry was dependent upon (a) home supplies, (b) Empire supplies, and (c) foreign supplies approximately to an equal extent. The year 1921 was abnormal in the leather industry and imports were small, this being reflected in the high proportion of native supplies in that year; 1922 was more nearly normal (but not so near normal as 1923, the figures for which are not at the time of writing

available), and it is not possible to say if there is likely to be any change in the pre-War proportion. Inasmuch as the native supplies are decreasing (it will be shown later, for example, that supplies of sheepskins have diminished by 20 per cent as compared with pre-War), development of the industry in this country will depend mainly upon increase in imported supplies; the importation of live cattle (e.g. from Canada) will, however, help to increase supplies of hides readily available in this country.

## SUMMARY OF LEATHER POSITION

Coming next to the position of the production of leather in this country, reference may first be made to the results of the Census of Production held in 1907. The only complete census of the output of the leather industry, the results of which have been published, is that taken in the general Census of Production of the United Kingdom in 1907. A further census was taken in 1912, but the results have never been published. Many censuses were taken during the War, but none of these covered the whole industry. The salient features of the leather trade (tanning and dressing) determined by the Census of Production in 1907 are set out in Tables B 9, 10, and 11. Excluding from Table B 9 (value of production) certain items not falling properly under the heading of leather (but rather of leather manufactures and waste products), a total value of the output of £15,600,000 is obtained for 1907. This figure, however, contains certain duplications, inasmuch as the value of rough tanned leather sold by a tanner to a currier was included in the census return made by each of them. In the census report it was pointed out that the magnitude of this duplication could not exceed £2,500,000, but it was not suggested that this figure truly represented the amount to be subtracted from the £15,600,000 in order to obtain the true output; and if we accept the "mean" between the minimum and maximum limits an output of £14,500,000 in round figures is obtained. In order to act as a check on estimates of production to be made later for subsequent dates for which no census results are available, it is of interest to compare this figure with that obtained by the application of the method which will be used and which is the only means available for forming the later estimates. It is estimated that the net value of the native hide and skin supply (allowing for exports) in 1907 was rather over £4,500,000. The value net (i.e. allowing for re-exports) of imports of hides and skins and tanning materials was as follows:—

	£
Wet hides . . . . .	1,320,000
Dry hides . . . . .	720,000
Goatskins . . . . .	360,000
Woolled sheepskins . . . . .	1,420,000
Pickled sheepskins . . . . .	160,000
Tanning materials . . . . .	1,330,000
Rough tanned leather requiring further treatment	1,600,000

These, together with the native materials, make a total of £11,410,000, say

## LEATHER, HIDES, AND SKINS

£11,500,000 in round figures. As the result of various enquiries it may be assumed that before the War, on the average of the different classes of the industry, the amount spent on materials was about 80 per cent of the turnover in leather, and this percentage is confirmed by the results of the census itself. This percentage applied to the above figures gives as the value of the output of leather for 1907, £14,250,000. Taking all the factors of estimation into account this is a satisfactory agreement with the results given by the census and estimates made by this method for subsequent years, therefore, are probably fairly near the truth.

We can now apply the same method to the pre-War year 1913 and the post-War years 1921 and 1922. From the details given later it is estimated that the value of the production of native hides and skins was as follows :—

	£
1913 . . . . .	6,000,000
1921 . . . . .	6,500,000
1922 . . . . .	6,500,000

and the corresponding consumption (allowing for exports) accordingly as follows :—

	£
1913 . . . . .	4,800,000
1921 . . . . .	5,900,000
1922 . . . . .	5,750,000

The net imports of hides and skins and tanning materials and rough tanned leather requiring further treatment in the three years were :—

	£
1913 . . . . .	8,700,000
1921 . . . . .	5,800,000
1922 . . . . .	8,700,000

Adding these to the figures for native supplies given above, the figures for the total consumption are deduced as follows :—

	£
1913 . . . . .	13,500,000
1921 . . . . .	11,700,000
1922 . . . . .	14,450,000

For 1913 the figure given above, viz. 80 per cent, as the proportion of the value of raw material to leather produced, approximately holds, but for 1921 and 1922 it is estimated that the corresponding percentage was about 70 per cent.

Accordingly the data for the various years leads to the following results for the production of leather :—

	£
1913 . . . . .	17,000,000 approximately
1921 . . . . .	14,500,000 „
1922 . . . . .	18,000,000 „

It is hardly possible to state a margin of error in these estimates, but judging from the result for 1907 they are probably within 5 per cent of the truth. The increase in the value of the production between 1913 and 1922 was less than would have been accounted for by increase in price alone with an equal volume of production. The volume of production in 1922 was accordingly less than in 1913. The figures of imports of raw materials for 1923, so far as available at the time of writing, show a substantial increase on those of 1922, and the total production was no doubt appreciably larger.

The comparison of production of leather with imports of leather may now be made. Tables B 5 to 8 summarise all the items concerned, and allowing for the rough tanned leather requiring further treatment after importation here, the figures are :—

	1913 £(000)	1921 £(000)	1922 £(000)
Undressed leather (mainly sole leather)—			
Imports . . . . .	—	915	952
Re-exports . . . . .	—	88	55
Net imports (estimated) . . . . .	2,000	827	897
Dressed leather—			
Imports . . . . .	4,706	5,285	6,846
Re-exports . . . . .	504	351	441
Net imports . . . . .	4,202	4,934	6,405
All leather—			
Imports . . . . .	—	6,200	7,798
Re-exports . . . . .	—	439	496
Net imports (approximate) . . . . .	6,200	5,800	7,300

In the tables referred to, the amounts of the gross imports of each article coming from foreign and Empire countries are shown. Allowing for the re-exports it is estimated that only about 10 per cent of the net amount of imported leather, other than leather requiring further treatment after arrival here, comes from Empire countries, no less than 90 per cent coming from foreign countries.

Taking 1922 as the more representative of the post-War years, the post-War imports were approximately £7,300,000<sup>1</sup> as compared with a production of £18,000,000, so that the production was nearly 2½ times the imports. For 1913 the imports were £6,200,000 as compared with a production of £17,000,000, or substantially more than 2½ times the imports.

The export figures for leather for the same years were as follows :—

	1913 £(000)	1921 £(000)	1922 £(000)
Undressed leather . . . . .	1,244	1,583	1,743
Dressed leather . . . . .	2,224	1,657	2,023
All leather . . . . .	3,468	3,240	3,766

<sup>1</sup> The figures for 1923, which have since become available, show a total net import, allowing for leather requiring further treatment, of about £7,000,000.

Prices in 1921 were, on the average, approximately 50 per cent above those of 1913, and in 1922, 30 per cent. Representing in each case the volume in 1913 as 100, the index for volume of production, imports and exports in 1921 and 1922 are accordingly as follows :—

	1913,	1921	1922
Production . . . . .	100	57	81
Imports . . . . .	100	62	91
Exports . . . . .	100	62	83

These indices, which are admittedly based upon round figures and estimates which in many cases can only be approximately true, indicate that the fall in production taken over the whole industry has been rather more than in imports, though the exports have fallen no more than the production. As will be seen later, however, the fall in the import of sole leather was very substantial, and the general result shown arises entirely from the severe competition experienced in dressed leather from abroad (chiefly upper leather) in 1922.

From the figures set out above the consumption of leather is obtained as follows :—

	1913 £(000)	1921 £(000)	1922 £(000)
Production . . . . .	17,000	14,500	18,000
Net imports . . . . .	6,200	5,800	7,300
Exports . . . . .	3,500	3,200	5,800
Consumption . . . . .	19,700	17,100	21,500

Thus the pre-War consumption of leather in the United Kingdom was about £19,700,000, while the 1922 figure was approximately £21,500,000. This latter figure divided by the population gives a consumption per head of about 10s. at manufacturers' or importers' prices. This is not, of course, the amount spent, on the average per person, on leather since actual purchases are in the form of boots and leather goods on which much more labour has been expended.

#### SUMMARY OF POSITION OF LEATHER MANUFACTURES

The survey of this portion of the subject may be completed by a short consideration of the corresponding figures for leather manufactures. According to the Census of Production of 1907 the value of the materials used in boot manufactures, saddlery and harness manufactures, bag and leather goods manufactures was 60 per cent of the selling value of the output, and this figure probably held also for 1913. For 1921-22 the corresponding figure is probably about 50 per cent. On this basis, the figures for consumption of leather given above, lead to the following figures for the corresponding output of leather manufactures :—

	£
1913 . . . . .	33,000,000
1921 . . . . .	34,000,000
1922 . . . . .	43,000,000

# GREAT BRITAIN AND IRELAND

47

Taking account now of the exports and imports of leather goods leads to the following :—

	1913 £(000)	1921 £(000)	1922 £(000)
Production . . . . .	33,000	34,000	43,000
Imports . . . . .	3,000	1,800	2,400
Exports . . . . .	6,400	3,900	4,200
Consumption . . . . .	29,600	31,900	40,800

The consumption per head of leather goods in 1922, therefore (at manufacturers' prices), was about 20s. The imports of manufactured goods came almost entirely from foreign countries, and only £20,000 in 1922 came from the Empire.

To complete this Section the figures for leather manufactures, determined by the Census of Production of 1907, may be given as follows :—

	£
Boots and shoes (98,000,000 pairs) . . . . .	20,100,000
Leggings and gaiters . . . . .	115,000
Leather laces . . . . .	171,000
Boot and shoe uppers . . . . .	215,000
Leather gloves (about 750,000 dozen pairs) . . . . .	1,046,000
Saddlery, harness, etc. (leather) . . . . .	1,099,000
Bags and fancy leather goods . . . . .	1,338,000
Leather belting . . . . .	1,194,000

These items total £25,278,000, or allowing for unspecified leather manufactures, in round figures, £26,000,000, comparing with the estimate of £33,000,000 in 1913. As prices of leather in 1913 were at least 20 per cent higher than in 1907, and there was probably an increase in volume of production, these two results are in fair agreement. In closing this summary statement it should be repeated that many of the results are based upon estimates. They are, however, probably sufficiently accurate to enable a satisfactory perspective of the magnitude of the industry to be obtained.

## RAW MATERIAL SUPPLIES

The United Kingdom is an important producer of the hides and sheepskins required for the tanning industry. On the other hand, it produces practically no tanning materials (about 10,000–12,000 tons of oak bark and 800 tons of larch bark per annum of a value of the order of £60,000, see Table B 21) and no goatskins. Only an infinitesimal proportion of the pigskins which could be made available for tanning are actually used. The approximate figures of annual production of hides and skins are :—

Cattle hides . . . . .	2,500,000
Calfskins . . . . .	800,000
Horse-hides . . . . .	200,000
Sheep and lambskins . . . . .	9,000,000

## LEATHER, HIDES, AND SKINS

The total value at 1923 prices is about £6,500,000. The facts regarding the pre-War and post-War supplies of cattle and sheep from which the hides and skins are obtained are shown in detail in Table B 12 for England, Wales and Scotland, and in Table B 13 for Ireland. Compared with the figures for 1913 the latest ones show a decrease of cattle in Great Britain of 2 per cent, and of sheep of nearly 20 per cent.

## CATTLE HIDES

The chief general statistical information available on the subject of British cattle hides is that collected during the War, certain summaries of which were first published (by permission of the Army Council) in the *Leather Trades Year Book* 1919-20. A summary of cattle hide statistics collected in 1917 and 1918 is given in Tables B 14 and 15. From these it appears that approximately 70 per cent of the cattle hides are ox and heifer, 23 per cent cow, 3 per cent bull, and 4 per cent casualty hides. On the basis of 2,500,000 cattle hides annually therefore, the approximate number of hides of the various types is :—

Ox and heifer . . . . .	1,750,000
Cow . . . . .	575,000
Bull . . . . .	75,000
Casualty . . . . .	100,000

The same tables show the number of ox and heifer-hides falling within each of the weight classes used in the marketing of these hides, viz. 49 lb. and under, 50-59 lb., 60-69 lb., 70-79 lb., 80-89 lb., and 90 lb. and over respectively. The percentages and approximate numbers in each class are as follows :—

Weight Group.	Percentage.	Number.
49 lb. and under . . . . .	9	157,000
50-59 lb. . . . .	27	473,000
60-69 lb. . . . .	31	543,000
70-79 lb. . . . .	22	385,000
80-89 lb. . . . .	9	157,000
90 lb. and over . . . . .	2	35,000
Total . . . . .	100	1,750,000

The corresponding particulars for cow-hides are as follows :—

Weight Group.	Percentage.	Number.
49 lb. and under . . . . .	12	69,000
50-59 lb. . . . .	41	236,000
60 lb. and over . . . . .	47	270,000
Total . . . . .	100	575,000

Bull-hides and casualty hides are not generally classified according to weight.

Generally, ox-hides of over 70 lb. fetch better prices than lighter hides, the difference at the present time (December, 1923) being 20-25 per cent in favour of the heavier hides. Similarly heavy cow-hides are in greater request than light ones, but the corresponding difference at the present time is smaller. These differences, however, do not always hold, and there have been occasions when the reverse position held good. In the early part of 1914, for example, light hides (both ox and cow) were fetching about ½d. per lb. more than heavy ones. During the War period of control no differentiation of price was made according to weight. English hides are sold also in various classifications according to quality, three grades being generally recognised—firsts, seconds, and thirds. The criteria adopted in determining this classification are referred to later. There is not much information available regarding the proportions falling in each of the categories, but the following statistics relating to hides sold in Glasgow in 1922-23 and published by the Glasgow Hide Improvement Society are of interest :—

Date. 1922.	First Class. Per cent.	Second Class. Per cent.	Third Class. Per cent.	Branded. Per cent.
August . . .	59.18	38.94	.89	.99
September . . .	63.43	34.84	.64	1.09
October . . .	68.65	30.04	.74	.57
November . . .	65.84	32.57	.98	.61
December . . .	66.53	31.62	1.06	.79
1923.				
January . . .	70.21	26.1	.78	2.91
February . . .	58.76	36.84	3.04	1.36
March . . .	50.48	42.88	5.89	.75
April . . .	47.62	47.04	5.22	.12
May . . .	46.15	49.86	3.72	.27
June . . .	51.14	43.72	2.61	2.53
July . . .	51.59	43.29	1.29	3.83
August . . .	62.67	32.55	1.03	3.75

Figures were also collected for January, 1919, for the whole country, and these showed that the proportion of hides classified as firsts was :—

Ox and heifer . .	52 per cent firsts	48 per cent seconds.
Cow . . .	50 „ „	50 „ „

In spite of the adoption of uniform criteria throughout the country there is considerable variation in the proportion of first-class hides in different markets, and these differences cannot altogether be accounted for by real differences in the hides handled by the markets. In two neighbouring markets, for example, presumably having their hides from similar sources, the percentage of first-class hides in one for a certain period of 1923 was 70, and in the other for the same period was 40.



Table B 15 shows the number of hides sold in each month of 1917 and 1918. It is quite possible that these two years do not properly represent the normal variation in the proportion of hides coming forward each month. The only other information on the subject is that contained in the weekly market reports issued by the Board of Agriculture. In these are given each week the number of fat cattle sold in certain selected markets (about 40). This sample represents only about 15 per cent of the total cattle slaughtered, but affords a comparison with the other figures just referred to.

The table below shows, for each of the two sets of data referred to, the excess or deficiency per week in each of the months in comparison with an average week taken over the whole year. Thus 80 for February indicates that the supply of hides in any week in that month is 20 per cent below the average for the year; 134 for November indicates that the supply in any week in that month is 34 per cent in excess of the average for the year.

	1917.	1918.	Average. 1920-22.
January . . . . .	92	112	122
February . . . . .	92	99	80
March . . . . .	92	101	82
April . . . . .	94	94	80
May . . . . .	98	86	77
June . . . . .	88	57	65
July . . . . .	79	68	80
August . . . . .	96	83	98
September . . . . .	104	112	115
October . . . . .	113	130	120
November . . . . .	125	141	134
December . . . . .	120	120	147
Whole year . . . . .	100	100	100

During 1917 and 1918 the slaughter of cattle was controlled, and the natural tendencies to large supplies in certain months were curbed by spreading supplies over a larger period. Nevertheless, there is substantial resemblance between the three sets of figures, June and July showing up in each instance as the months of smaller supplies, and October, November, and December as those of largest supplies. The last column probably most nearly represents the normal facts.

There is a substantial amount of seasonal variation in hide prices, this arising for a variety of reasons, e.g. length of hair, condition of hide, and warble season. The extent of this seasonal variation cannot be detected from the examination of the figures for any one year, owing to market fluctuations of supply and demand. An analysis has accordingly been made of the prices during the thirty-five years preceding the War. This embraced a period during which best heavy ox-hides (60-69 lb. or nearest comparable weight) varied in price from 2½d. to 7½d. per lb. The method adopted has been to express for each year the price for each month as a percentage of the average for the whole of the

year, and then to combine the results over the whole series of years. The results are as follows :—

January	. . . . .	93
February	. . . . .	93
March	. . . . .	93
April	. . . . .	95
May	. . . . .	100
June	. . . . .	105
July	. . . . .	108
August	. . . . .	108
September	. . . . .	106
October	. . . . .	105
November	. . . . .	102
December	. . . . .	97

By combining results over such an extended period we remove to a considerable extent, if not entirely, the effect of such factors as the state of trade (e.g. occasionally in the thirty-five years December was the month of highest price, but averaged over the whole period the price in that month stands in relation to those in the other months of the year as indicated by the above figures), and the figures probably represent very fairly the relative values of the hides coming forward each month. It will be noticed that there is a fairly smooth graduation of the figures from 93 in January–March to 108 in July–August. Hide prices can accordingly, on the average, be expected to be at the lowest point in January–March and at the highest in July–August. A comparison of these figures of relative prices month by month with the series of figures given previously indicating the relative supplies for the country in the various months shows that the magnitude of the supply does not appear to affect the price, or rather the operation of the law which determines price according to the relative intensity of supply and demand is hidden by the operation of the more important factor, viz. quality of hide. Thus, when hides are most scarce (May to July) price is only slightly over the average of the year. Similarly from September to November, when hides are plentiful, the price is relatively at a high level. In the warble and bad condition season both supplies and prices are low.

Prices of hides in the three or four years before the War and since have been on a very much higher level than ever previously ; the increase up to 1913 was on a very much greater scale than was the increase in prices generally. The hide is a by-product, and a substantial increase in the demand for leather produces very little effect on the supplies of hides available to meet the increased demand. The increase in the use of footwear throughout the world, and other demands for leather in the two decades before the War seem to have caused hide and leather prices to take up permanently a new level, far above that ruling up to the end of the last century. In the table below is shown the average prices of English hides in each year from 1879 to 1913, together with an index number of those prices worked out to be comparable with the well-known Sauerbeck Index Number of Prices in General.

## LEATHER, HIDES, AND SKINS

Year.	Average Price of English Hides. Price per lb.	Index No. of Hide Prices.	Sauerbeck Index No. of Prices in General.
1879 . . .	3 $\frac{3}{4}$	72	83
1880 . . .	4 $\frac{1}{8}$	88	88
1881 . . .	4 $\frac{1}{8}$	84	85
1882 . . .	4 $\frac{3}{8}$	84	84
1883 . . .	4 $\frac{3}{8}$	84	82
1884 . . .	4 $\frac{1}{2}$	86	76
1885 . . .	4 $\frac{3}{8}$	84	72
1886 . . .	4 $\frac{1}{8}$	79	69
1887 . . .	4	76	68
1888 . . .	3 $\frac{3}{4}$	72	70
1889 . . .	3 $\frac{3}{4}$	72	72
1890 . . .	3 $\frac{3}{8}$	74	72
1891 . . .	3 $\frac{3}{8}$	69	72
1892 . . .	3 $\frac{1}{4}$	62	68
1893 . . .	3	57	68
1894 . . .	2 $\frac{7}{8}$	55	63
1895 . . .	3 $\frac{3}{8}$	64	62
1896 . . .	3 $\frac{1}{4}$	62	61
1897 . . .	3 $\frac{3}{8}$	67	62
1898 . . .	3 $\frac{3}{8}$	72	64
1899 . . .	4 $\frac{1}{4}$	81	68
1900 . . .	4 $\frac{3}{8}$	88	75
1901 . . .	4 $\frac{3}{8}$	84	70
1902 . . .	4 $\frac{1}{4}$	81	69
1903 . . .	4 $\frac{3}{8}$	84	69
1904 . . .	4 $\frac{3}{8}$	88	70
1905 . . .	4 $\frac{3}{8}$	93	72
1906 . . .	5 $\frac{1}{8}$	107	77
1907 . . .	5 $\frac{3}{8}$	105	80
1908 . . .	4 $\frac{3}{4}$	91	73
1909 . . .	5 $\frac{1}{4}$	110	74
1910 . . .	6 $\frac{1}{4}$	119	78
1911 . . .	6 $\frac{1}{4}$	119	80
1912 . . .	6 $\frac{3}{4}$	131	85
1913 . . .	7 $\frac{3}{8}$	141	85
1920 . . .	14 $\frac{1}{2}$	282	251
1921 . . .	6 $\frac{3}{8}$	131	155
1922 . . .	8 $\frac{1}{4}$	155	132
1923 . . .	8 $\frac{1}{8}$	155	130

The table has been constructed so that the two index numbers were approximately the same in the comparatively stable period (both for hide prices and for prices in general) 1880-83. From 1884 to 1887 hides moved up compared with general prices, remained approximately steady and comparable with prices in general from 1888 to 1890, fell substantially below general prices from 1891 to 1894, while from 1897 onward they went soaring above general prices and at an increased rate until the War broke out. After the fluctuations of 1920 and 1921 they have settled down at a level rather higher than prices in general, having lost most of the large excess which had accrued before the War.

It is of special interest to note how hide prices rose continuously at a much more rapid rate than prices in general from 1894 until the outbreak of the War. The total increase in hide prices was over 155 per cent, while the general level of prices rose only about 35 per cent. An examination of the cattle and hide figures of most of the countries of the world shows that total supplies both of cattle and hides increased but little in the period. During the period in question there was a substantial rise in the standard of living throughout the world, and this was evidenced by the growing demand for leather goods and the increased consumption of boots. Hides being a by-product, supplies respond to increased prices only to a small extent and thus prices rise higher with every increase in demand.

A very large proportion of the 50,000 hides taken from cattle in Great Britain each week are taken off by small slaughtermen. Large abattoirs exist in Birkenhead, London, and in a few other towns, but the development in the use of central abattoirs in this country is extremely slow. This fact has a marked effect upon the quality of the hides supplied to the tanning industry. While the flaying in the abattoirs is done by skilled men whose whole time is given to the job and whose skill produces a hide without cuts, in the case of the butchers the work is done by unskilled men who have many other occupations to perform in the course of the day in addition to the flaying of the animals. As a consequence the flaying of a large proportion of the native hides used by tanners in Great Britain leaves much to be desired. There are probably many hundreds of thousands of hides each year destroyed by unskilled flaying to the extent of 5s. to 10s. each. That this large economic loss could be obviated is shown by the example of Germany. German hides, before the institution of central abattoirs some years ago, had a very poor reputation. Drastic reforms, however, were accomplished in slaughtering organisation and, immediately before the War, the German hides were held in very high repute and were much sought after by tanners in this country whose business required a good heavy hide.

Conferences have been held between representatives of the tanners and of the butchers on this subject of bad flaying, and the latter are becoming alive to the fact that there is an economic loss involved, both to them and to the country, through badly flayed hides and skins, but so far it is not possible to report any marked improvement.

Recently certain hide markets have instituted flaying competitions for the

butchers from whom they derive their hides, and this idea of flaying competitions will probably develop. Recently, too, there have been various instruments devised for improving the flaying of hides and skins, notably a Swedish flaying knife and the "Perco" flaying machine. The last-named machine has been described as an almost perfect instrument for flaying animals. It requires, however, certain mechanical or electrical power, and is only applicable on a practical scale to large abattoirs. There is no doubt, however, that the adoption of some such instrument as this generally throughout the large abattoirs in the kingdom would improve the flaying of hides and sheepskins to a substantial extent. It is reported that no less than 40 per cent of the hides are taken off in France by this machine, and that these hides obtain 60 francs per 100 kilos in excess of similar hides not so flayed.

Of even greater intensity than the trouble caused by bad flaying is the trouble given to the tanner in this country through the ravages of the warble fly. The actual economic loss caused by the warble fly has been variously estimated from one million to ten million pounds sterling per annum, but is almost certainly nearer the lower figure. In any case, this represents an extremely heavy loss, and prohibits the use of a large number of otherwise suitable hides for the manufacture of bags, upholstery work, belting, etc. In recent years a good deal of attention has been devoted to this scourge. Towards the end of the War the Director of Raw Materials of the War Office, who at that time was responsible for the leather supplies for the Armies, being very much impressed with the large proportion of the leather produced which was unsuitable for many military purposes, set up a committee of representatives of tanners, butchers, farmers, hide markets, together with official representatives of agriculture and research institutions to advise on the subject of research and remedial measures to be taken in order to diminish the evil effects caused by the warble fly. After the War the committee was placed under the ægis of the Minister of Agriculture, and has remained in being ever since. By means of a grant provided by the Development Commissioners research has been undertaken on an extensive scale in Ireland under the auspices of Professor Carpenter, late of the Department of Agriculture, Dublin, and now Curator at the Science Museum, Manchester. Full particulars of the experiments which have been undertaken and of the results which have been obtained are given in the various publications referred to in the bibliography, but special attention may be directed to Professor Carpenter's article in the *Leather Trades Year Book* in 1922, and to that of Mr. Seymour Jones in the previous number of the same publication. In view of the fact that the elimination of the warble fly in Great Britain would mean an extensive improvement in the supplies of an important national raw material, and the fact that opinion on the subject has been ripened considerably by the work of the past few years, special attention may be directed to this matter.

The trend of research demonstrated that the most efficacious method of dealing with the subject was by means of dressings on the affected part of the animal. As a result of his experiments with various sprays and dressings during 1919, Professor Carpenter concluded that the most efficient dressing

devised up to that date was one composed of tobacco powder and lime wash (4 lb. of tobacco with 1 lb. of lime to 1 gallon of water). The percentage of maggots killed as a proportion of the maggots treated with this dressing reached as high as 90 per cent. Subsequently, in the warble season (spring and early summer) of 1923, Professor Stewart MacDougall, of Edinburgh University, carried on further experiments for the destruction of the warble fly in East Lothian, Scotland, and in these series of experiments nearly 7000 larvæ were squeezed out of infected cattle, and each one carefully examined to see whether the larvæ had been affected by the dressing or not. Scores of farms and many hundreds of animals were examined and reported upon.

The work of Professor Stewart MacDougall enabled a test to be made on a large scale of the efficacy of lime powder and tobacco dressing. The experiments proved to be very satisfactory, a high percentage of larvæ being killed and no ill effects to the cattle, either to health or to the hide, were noticed. Out of the 3,572 warbles dressed 2,916 (82 per cent) were killed.

The experiments in 1923 followed similar experiments which had been made in 1922, and in the 1923 experiments Professor MacDougall was able to ascertain that by far the greater number of cattle showing warbles were cattle which had been imported from various places into East Lothian since the previous dressing, and that these were chiefly Irish cattle, the permanent cattle in the district being very little warbled. Professor MacDougall gives figures from which the following table has been compiled:—

Location of Cattle in Spring and Summer 1922.	Number of Cattle at experiment of 1922.	Number free from warble.	Number warbled.	Number of warbles.
Ireland . . . . .	494	193	301	1,872
East Lothian . . . . .	328	267	61	236
Other areas outside East Lothian . . . . .	89	50	39	492

This table shows a much higher percentage of animals warbled among the cattle which had been imported into the area.

On the subject of the geographical distribution of warbles in Great Britain, at the request of the United Tanners' Federation, the National Farmers' Union has through its members obtained general information on the state of each county in this respect. From this information it would appear that every county is more or less affected, Hereford, Lincs. (Holland), Middlesex, Brecon and Radnor being least affected. The two last counties are of a mountainous character, and it has previously been pointed out that cattle suffer less in hilly districts than in low-lying areas. It is interesting to note in this connection that a hide market receiving hides from the Scilly Isles state that these at no time have shown the slightest trace of warbles. It has been pointed out, too, that cattle sheltered under trees appear to enjoy a considerable degree of immunity from the warble fly. It has further been stated that in part of Brazil, where cattle are made to walk through water and thick mud, they are found to be free of warbles.

The Warble Fly Committee, referred to above, at a meeting early in 1923 considered a resolution which had been passed at a meeting of farmers, butchers, tanners, and leather users, and at which Professor Carpenter had lectured on the warble fly, to the effect that draft proposals for compulsory treatment of cattle against the warble fly should be drawn up, and that the Minister of Agriculture should be asked to introduce legislation on the subject as soon as practicable. The committee felt, however, and their view is shared by those most closely in touch with the development of the research, that the practical difficulties in the way of compulsory treatment have not yet been completely overcome, and that a better course for a further stage in the development of public opinion on the subject would be to arrange for treatment to be carried on in some particular large local area. At the present time, too, the Minister of Agriculture is unwilling to add to the burdens of farmers by instituting further compulsory measures. In Denmark legislative action has been taken, but so far no information as to the result of the action is available.

In the meantime further research is being carried on under the auspices of the Warble Fly Committee, supported by a contribution from tanners. Educational work is being done also at the various agricultural shows, through lectures and films and other means of propaganda.

Another defect to which English hides are occasionally subject is the tick. This was fairly serious in 1922 following the dry summer of 1921. Tick is extremely prevalent in hides from South America and elsewhere, and renders the hide unsuitable for many purposes.

There are about 160 hide markets in Great Britain. Most of those in England are in the Hide Markets' Federation. All of these in England, and a few in Scotland, are in the Hide, Leather and Allied Trades' Improvement Society. This Society was formed with the general object of promoting and protecting the interests of the industry, and of securing a national and equitable system of weighing, classifying, and trimming of hides and skins, and its membership consists of hide markets and tanners using native hides. The Society is financed by means of the tanners paying 1d. on every hide which they purchase. It maintains a staff of inspectors who regularly visit the markets and report upon the classifying and weighing performed by the market representatives. There is considerable scope for personal judgment in determining the correct weight of a hide, and one of the duties of the inspectors is to see that the proper allowance for extraneous matter on the hides is made. It is only when the hide has been through the process of liming and unhairing and is weighed on the rounding table that it is possible to give a verdict of the correctness of the judgment, and there is considerable variation in the "pelt weight" obtained from the different markets. Figures taken at one tan-yard and at approximately the same time indicate a range of variation of more than 10 per cent between the best and the worst markets in respect of weighing.

The Hide Improvement Society is at present managed by a central committee consisting of representatives of the tanners and of the hide markets. During the early years of the Society representatives of the butchers also were members

of the central committee. The representatives of the butchers, however, seceded from the Society soon after the close of the War.

There is also a Scottish Hide Improvement Society, and local societies with considerable autonomy but connected with the corresponding national ones in Newcastle, Glasgow, and Edinburgh.

Since the importation of Canadian store cattle has been permitted in Great Britain a further problem has arisen affecting the supply of raw material to the tanner. Practically all cattle in Canada are branded, whether intended for exportation or not. The regulations affecting those imported into this country require that certain further brands should be made. In the case of cattle slaughtered at the big abattoirs on arrival this creates no special difficulty, though there is, of course, economic loss through the branding. In the case of store cattle, however, which subsequently mingle freely with native-born cattle, special difficulties arise. The hides from these animals on a cursory examination are similar to those from the native animals, and it may not be until they are unhaird that the tanner discovers that he has paid English hide prices for a branded hide which, in view of the lack of demand by leather buyers for branded leather, is worth 2d. per lb. less to him. Negotiations are at present on foot between the Tanners' Federation and the Hide Markets' Federation for a solution of the difficulty.

#### HORSE-HIDES

Apart from the information collected during the War, very little is available concerning supplies of horse-hides. Before and during the first half of the War practically no horse-hides were tanned in this country, but were exported to United States and Germany. The whole supply available was used in this country, however, in the last year or two of the War, but subsequently the trade has gone back into its pre-War channels, and few are now tanned in this country.

The classification of horse-hides differs from that used in the case of cattle hides.

First-class horse-hides contain only hides over 60 lb. (the average of such is probably about 70 lb.) and only the best in quality of hides of these weights are included in this class.

Seconds consist of hides which are of good quality of weight, 50-60 lb., and also hides over 60 lb., of which the quality is not good enough for No. 1.

Thirds consist of hides which are of good quality of weight, 40-50 lb., together with hides of secondary quality of weight, 50-60 lb., and also damaged hides over 60 lb.

Fourths consist of the residue not falling into the above classes. On the experience of a large number of hides during the War, the average proportions falling into each class are :—

	Per cent.
Firsts . . . . .	25
Seconds . . . . .	40
Thirds . . . . .	25
Fourth . . . . .	10



Apart from the differences for tanning purposes, a first-class horse-hide in value is comparable with a second-class cow-hide of the same weight, the heavy mane, large amount of meat left on, and long shanks having to be taken into account. They are generally sold by the hide, and not by the lb., and as a rough guide, during the War, the value of a No. 1 horse-hide (which is 60 lb. and over) was taken as equal to a 45-lb. cow-hide.

The figures in Tables B 14 and 15 show, for 1917 and 1918, the number of horse-hides purchased per month by tanners. These figures cannot, however, for various reasons be accepted as indicative of the actual supply of horse-hides month by month, and this information is not available.

## CALFSKINS

Tables B 14 and 15 show that calfskins are classified for weight as to 3 per cent 17 lb. and up, 26 per cent 9-16 lb., and 71 per cent under 89 lb. On the basis of approximately 800,000 skins per year, this would indicate the annual supplies as :—

24,000	.	.	.	17 lb. and up.
208,000	.	.	.	9-16 lb.
568,000	.	.	.	under 9 lb.

There is substantial seasonal fluctuation in the supply of calfskins, Tables B 14 and 15 showing the following results when expressing the weekly supply in the various months as a percentage of the average weekly supply throughout the year :—

January	.	.	.	.	82
February	.	.	.	.	75
March	.	.	.	.	107
April	.	.	.	.	112
May	.	.	.	.	124
June	.	.	.	.	100
July	.	.	.	.	78
August	.	.	.	.	76
September	.	.	.	.	102
October	.	.	.	.	128
November	.	.	.	.	118
December	.	.	.	.	98

These figures indicate two definite " off " seasons, January-February and July-August. The skins coming forward towards the end of the year are, on the whole, heavier than those in the spring and early summer, the proportion over 9 lb. in September-December being 31·3 per cent compared with 28 per cent in March-June. The actual weight classes used for the sale of calfskins in many markets is as follows :—

25 lb. and up.		8 lb. and under.
17-24 lb.		Casualty.
9-16 lb.		Cut.

There is, however, no standard of classification common to all markets as is attempted in the case of hides, and this fact is from time to time the cause of dissatisfaction. Negotiations are in hand at the present time, however, for the adoption of a standard, and a scheme will probably shortly be in operation.

### SHEEPSKINS

Though second in importance to cattle hides in point of value, the annual supply of sheep and lambskins in Great Britain is the foundation for an industry of fundamental importance. On the statistical side, the facts regarding pre-War and post-War supplies of sheep and lamb set out above (Table B 12 for England, Scotland, and Wales, and Table B 13 for Ireland) indicate a very distinct falling off in numbers, there having been a decrease of 20 per cent in the sheep in Great Britain since 1912, and this is reflected in the number of skins coming forward. It is computed that the number of sheep and lambskins, which probably approached 11,000,000 in 1913, was only about 9,000,000 in 1923. As shown on page 18 of Section A, this post-War decrease in the supply of sheep is almost universal, the total in the world falling from 584,000,000 pre-War to 509,000,000 post-War, a loss of no less than 13 per cent.

The Census of Production of 1907 gave the number of sheep and lambskins felled in England and Wales and Ireland as 8,928,000 of value £897,000, and in Scotland 903,000 of value £99,000. A census taken during the War, and covering the twelve months July, 1917, to June, 1918, showed the number of raw skins to be 9,700,000, and this figure was considered to be below that for the previous few years.

Table B 16 shows the weekly average for each month of the raw skins purchased by fellmongers in 1917-18. As would be expected, the supply of skins shows considerable seasonal variation. In addition to the evidence provided by the census referred to, information on this point is provided by the weekly report of the Board of Agriculture showing the numbers of fat sheep sold in a number (about forty) of markets weekly. These represent nearly 20 per cent of the total. Representing the average weekly supply throughout the whole twelve months concerned by 100, the corresponding figures for the weekly supply in each month is as follows:—

Month.	1917-18.	1920-21.
January . . . . .	114	109
February . . . . .	59	64
March . . . . .	63	61
April . . . . .	63	71
May . . . . .	54	67
June . . . . .	65	76
July . . . . .	112	113
August . . . . .	134	136
September . . . . .	140	133
October . . . . .	138	128
November . . . . .	143	122
December . . . . .	119	119

These two sets of results indicate remarkable agreement, and probably therefore very well represent the actual facts of supply of skins.

The census of 1917-18, in addition to information of raw skins purchased by fellmongers, obtained data regarding the fellmongered skins sold, these being separated not only into (a) sheep and (b) lamb, but each of these into grades for quality. These data are set out in Table B 16. It is possible, accordingly, to show approximately the seasonal variations in the supply of sheepskins and lambskins separately, and, on the same basis as before, the figures are as follows:—

	Sheepskins.	Lambskins.
January . . . . .	132	72
February . . . . .	125	59
March . . . . .	79	33
April . . . . .	76	31
May . . . . .	70	29
June . . . . .	55	51
July . . . . .	76	161
August . . . . .	69	206
September . . . . .	100	202
October . . . . .	129	141
November . . . . .	150	121
December . . . . .	135	92

These figures are not exactly comparable with the previous ones for the reason that "raw skins purchased by fellmongers" is not exactly comparable with "fellmongered pelts sold," skins occasionally being held up, so that the sequence of "pelts sold" does not exactly follow the sequence of "skins purchased." The figures show, however, the extent to which the "lamb" season is covered by July to November, and the sheep by September to February.

Sheep pelts are generally classified into (1) extras, (2) firsts or primes, (3) seconds or light primes, (4) thirds and below. Lambs similarly are classified into (1) supers, (2) firsts or primes, (3) seconds and below.

There is, however, no standard classification operating throughout fellmongers' yards, though recently the Roller Leather Manufacturers' Association have adopted a classification for lamb pelts for roller leather. This scheme, though giving satisfaction to roller leather tanners, is not entirely suited to the needs of other sheepskin tanners, whose requirements can be better met by other methods. The census referred to gave the following results of the proportion in the different classes for each month. (See table on page 61.)

The sheepskin tanner (unless he happens to be also a fellmonger) buys his material as a "pelt," i.e. the skin with the wool (a commodity of greater value than the pelt) taken off. In the case of hides the tanner himself takes off the hair, which is a by-product of comparatively small value. The tanner of sheepskins is, as a rule, accordingly one stage further removed from the animal than is the tanner of hides, and this fact has probably not been without signifi-

cance in determining the form of organisation operating in the trade. While the hide tanner, as mentioned above, works in daily connection with the hide markets who are in equally close touch with the butchers, the sheepskin tanner generally comes into touch only with the fellmonger, who buys woolled sheepskins from the market and is concerned, when making his purchase, rather more with the wool than with the skins. In recent months, however, various conferences have been held by which the tanners' representatives have come into direct contact both with the hide market representatives and also with the butchers. These conferences were convened for the purpose of giving consideration to the perennial question of bad flaying of skins. As a result of the conferences it is hoped that the hide markets will institute a special class for badly flayed skins (whatever the other features may be) so that, through receiving a

Month.	Sheep.					Lambs.			
	Extras. Per cent.	Firsts or primes. Per cent.	Seconds or light primes. Per cent.	Thirds and below. Per cent.	Total. Per cent.	Supers. Per cent.	Firsts or primes. Per cent.	Seconds and below. Per cent.	Total. Per cent.
January .	22·7	41·0	11·3	3·2	78·2	9·8	9·4	2·6	21·8
February .	20·0	44·4	12·7	4·0	81·1	8·1	7·7	3·1	18·9
March .	20·0	45·0	12·3	5·3	82·6	6·0	7·1	4·3	17·4
April .	20·5	45·7	12·1	4·9	83·2	5·4	7·1	4·3	16·8
May .	20·9	44·1	11·3	6·9	83·2	5·4	6·7	4·7	16·8
June .	17·2	27·1	10·4	14·3	69·0	13·4	10·3	7·3	31·0
July .	11·0	25·5	7·6	4·5	48·6	22·7	22·6	6·1	51·4
August .	5·0	22·3	8·5	4·6	40·4	26·2	26·7	6·7	59·6
September .	12·6	24·0	8·7	4·1	49·5	21·0	24·0	5·5	50·5
October .	16·9	33·4	10·8	3·5	64·6	14·9	16·3	4·2	35·4
November .	22·2	36·3	9·8	2·6	70·9	12·3	13·6	3·2	29·1
December .	19·7	39·6	11·7	3·1	74·1	11·0	11·6	3·3	25·9

lower price for such skins, the flayer may be induced to take greater care and to obtain greater remuneration.

Tanners have also been in consultation from time to time with fellmongers on the subject of damage caused to the skins through faulty fellmongering. A specification for fellmongering has been drawn up and improvements are reported to have followed on the more general application of this.

The grain of British sheepskins is better in the northern than in the southern part of the country. The skins from the latter part are suitable for linings and washable gloves, but for roller leather and other leather requiring good grain, skins from the Midlands, Northern counties, and Scotland are used.

Owing to the efforts made by the Scotch trade over a period of fifty or sixty years to improve the standard of flaying in all classes of hides and skins, woolled skins have shared in the improvement, with the result that Scotch pelts are noted

everywhere for their superior flaying, and this, added to their natural fine grain, makes them a valuable product for the use of leather dressers where superior quality is required.

The larger skins, which are generally of the white-faced sorts, are mostly bred in the south and east of Scotland, whilst the hardy black-faced are mostly reared on the hill-sides of the mountainous north-west of Scotland. Both classes of sheep find their way to leading markets in Scotland, being slaughtered in the different districts according to the demand existing for the various classes of mutton in the respective districts.

As a result of cross-breeding for the purpose of improving meat, however, tanners have noted recently deterioration in the type of skin coming from Scotland. Up to a point improvements for the purpose of meat and wool production are antagonistic to improvements in the skin for the tanner's purpose. Welsh skins have a very high reputation also for roller leather, and reference may be made to the articles by Mr. Seymour Jones on these (see Bibliography).

Sheepskins are at their best from July to December (for roller leather purposes lambs slaughtered from July to September are mainly used). In the early months of the year "cockle" (similar in its manifestations to a rash due to the over-heating of the blood) is prevalent. This very seriously depreciates the quality of the pelt, and no remedy has yet been found. The cockle, as a rule, in this country is at its height in March and April, and dies out by August. Mr. Seymour Jones in his standard book on *The Sheep and its Skin* states that the results of his own experiments "and the accumulation of evidence over a number of years conclusively prove that the prominence or virulency of cockle in certain seasons is in a large measure due to the conditions of food supply." It is impossible to produce soft leather from a cockly skin, which is accordingly useless for glove leather. The other skin deficiency from which tanners suffer, namely scab, is less prevalent now than formerly, as the maggot causing this is amenable to treatment by the shepherds.

Prices of sheep and lambskins averaged about 25s. 6d. per dozen in July, 1914. Prices towards the end of 1923 averaged about 33s. per dozen, an increase of about 30 per cent.

#### EXPORTS OF NATIVE HIDES AND SKINS

Not much need be said concerning the exports of British hides and skins. Particulars of the exports to individual countries for 1913, 1921, and 1922 are set out in Tables B 89 to 92. The great bulk of these exports go to foreign countries, Germany (partly through Holland), and the United States taking what hides are exported, while the same countries together with Belgium take practically all the sheepskins. Owing to the fact that the statistics of export of pickled skins include imported skins which have been fellmongered here, it is not possible to ascertain how many native skins are actually exported. In Table B 17 a short summary is given of the statistics of exports of all hides, skins, etc., from the United Kingdom, showing destination according to Empire country or foreign country.

## IMPORTED HIDES

It was shown at the beginning of this Section that Great Britain was dependent upon imports for 64 per cent in 1913 and 60 per cent in 1920 of her supplies of raw hides, skins, and tanning materials. Hides are imported from more than fifty countries of the world, and the leather industry accordingly probably thoroughly justifies the appellation of "the most international of all trades." There is also a very considerable transshipment trade in hides through British ports. (See Tables B 18 to 20.) In Table B 18 particulars of this transit trade for 1913 and 1922 are given in respect of 31 foreign and 19 Empire countries. This table indicates that, while less than 50 per cent of imports of hides from Empire countries were retained here, the corresponding proportion for foreign hides is 80 per cent. Before the War only a small proportion of the hides coming to this country from Russia and South Africa was retained here. As figures for calfskins are frequently included with those for cattle hides it will be convenient to deal with them here also with cattle hides.

Cattle hides and calfskins are imported into Great Britain in (a) the wet-salted state and (b) dry and dry-salted. Practically no wet-salted calfskins came to this country from the remainder of the Empire, although New Zealand is an exporter. France is the most important supplier, her contribution amounting to 40 per cent of the total; the quality and condition of these skins causes them to be highly sought after. (See Tables B 31 to 38.)

The net imports of wet-salted hides were £2,300,000 in 1913 and £1,800,000 in 1922. (See Tables B 32 and 33.) The countries of origin are shown in Table B 32, from which it will be seen that the proportion coming from the Empire has suffered reduction from 27 per cent in 1913 to 19 per cent in 1921 and 1922. Australia and South Africa supply substantial quantities, but Argentina is the sheet anchor for tanners of sole leather. Brazil and Uruguay show very substantial increases in 1921 and 1922 over 1913. Italy has fallen away considerably, though maintaining second place in 1922. Italian hides, however, are reported to have deteriorated in comparison with 1913, the flaying not being so good and the method of preservation has been complained of. The hides, being of the heaviest type now procurable, are, however, sought after for heavy sole leather and belting purposes.

The article which is chiefly instrumental in establishing the reputation of the leather industry in international trade is the dry and dry-salted hide. More than forty countries of origin are concerned in this trade. At least one-third of the dry hides are, however, subsequently re-exported. About 60 per cent come from the Empire, the chief country being South Africa, followed by India, Australia, and East Africa. Indian hides, as mentioned in Section C, go chiefly to Germany; the African hides, on the other hand, mainly come to this country. The South American countries are the largest suppliers of dry hides among foreign countries. In 1920 substantial quantities were imported from Russia, the volume amounting to nearly 80 per cent of the pre-War figure. The methods adopted in certain countries for the preservation of dry and dry-salted hides leaves much to be desired, and a specification drawn up by the Tanners' Federation has been given

a wide circle of publicity in parts of the Empire with a view to improving the preservation of these hides.

#### IMPORTED SHEEPSKINS

Sheep (and lamb) skins are imported into Great Britain in two forms : (1) as woolled skins requiring to be fellmongered here (if not re-exported), and (2) as pickled skins, already dewoolled. In 1922 the number of skins of the former class imported was nearly 15,000,000, of value nearly £3,000,000 (see Table B 39), and 60 per cent were retained in this country. More than 75 per cent of these skins came from the Empire, South Africa supplying 6,000,000 and Australia 3,500,000. The countries round Aden are also important suppliers of woolled skins, as also is New Zealand. The only foreign country sending quantities comparable with those from the Empire countries mentioned in 1922 was Russia with 1,100,000 skins. Spain, Chile, and Argentine are also important suppliers.

Only a small proportion (11 per cent in 1913) of the pickled pelts imported are retained here ; 80 per cent come from the Empire, and these practically all from New Zealand. Tables B 39 and 40, together with Tables B 91 and 92 and the information previously given for the supply of native skins, enable an estimate to be formed of the total number of sheep and lambskins consumed in Great Britain, as follows :—

	1913	1921 (Thousands).	1922
Native supply (estimated) .	10,000	9,500	9,000
Net import of woolled skins	8,000	2,500	8,600 (Tables B 39 and 41)
„ „ of pickled „	800	1,600	500 ( „ B 40 and 42)
Less exports woolled skins	100	200	300 (Table B 91)
„ „ pickled „ .	8,500	1,300	4,400 ( „ B 92)
Total consumed	10,200	12,100	13,400

These figures would appear to indicate a substantial increase in consumption of sheepskins in this country. In Table B 20 a summary is given of the transhipment trade in sheep and lambskins. This shows that of Empire skins imported less than one-half are retained here in the form imported ; the corresponding percentage for foreign skins was 43 in 1913 and 62 in 1922.

#### GOATSKINS

Particulars of goatskins imported and re-exported are given in Tables B 43 and 45. There is a substantial transit trade in this commodity, about one-third of the imports being retained here ; the summary table (B 19) shows the separate percentages for skins from Empire and foreign countries respectively. These imports totalled 12,000,000 skins in 1913 and 8,700,000 in 1922. No less than 90 per cent, however, came from the Empire, India being far away

ahead of any other country as a supplier of skins, with South Africa a good second, Nigeria and the Aden Dependencies following in order. The figures of imports in 1913 and 1922 were as follows :—

	1913. (Thousands of Skins).	1922.
Imports . . . . .	12,100	8,700 (Table B 43)
Re-exports . . . . .	8,500	6,000 ( „ B 45)
Consumed . . . . .	3,600	2,700

In 1922 there were still available in this country large quantities of goatskins, originally imported in the boom of 1919 and 1920, and the figure shown for 1922 is certainly an understatement of the number of skins actually used, even in a year of acute depression.

#### VEGETABLE TANNING MATERIALS

Tables B 48 to 57 give particulars of the imports of tanning materials. Considerably more information is available for 1921 and 1922 than for 1913, particularly with regard to tanning extracts. The home supply of tanning materials is extremely small, consisting of oak bark and spruce bark, and amounting to not more than £60,000 to £70,000 per year. Of the crude tanning materials, the chief bark imported is wattle or mimosa bark from Natal (and recently also from East Africa), this constituting nearly 90 per cent of the imports of bark. This bark has grown considerably in favour among tanners in Great Britain. Before the War most of that imported was re-exported to Germany, but a comparison of pre-War figures with those for 1922 shows the development which has taken place.

	1913 (Cwt.)	1922 (Cwt.)
Imports . . . . .	892,000	686,000 (Table B 48)
Re-exports . . . . .	678,000	115,000 „ „
Retained . . . . .	214,000	571,000

The amount retained in the United Kingdom increased from nearly 11,000 tons to nearly 29,000 tons.

The position regarding the imports of other crude vegetable tanning materials may be summarised as follows :—

	1913. Imports.		1922. Imports.	
	Retained Cwt.	Per cent. from Empire.	Retained Cwt.	Per cent. from Empire.
Sumach . . . . .	146,000	0	103,000	0 (Table B 49)
Gambier . . . . .	93,000	80	79,000	80 ( „ B 50)
Myrobalans . . . . .	543,000	100	490,000	100 ( „ B 51)
Valonia . . . . .	342,000	0	106,000	0 ( „ B 52)
Other materials . . . . .	25,000	25	34,000	23 ( „ B 53)

Valonia comes entirely from Smyrna and Asiatic Turkey, and the large falling



off in the imports is easily accounted for. The only other feature worthy of remark in connection with the statistics of the other commodities is the high price of gambier. Whereas most of the other crude tanning materials had fallen in 1922 almost to the pre-War level, the price of gambier remained very high, the import value in 1913 being 26s. per cwt. and the price quoted in 1923, 50s. per cwt. Serious complaints; too, have been made by tanners regarding the quality of post-War gambier.

Before the War the various tanning extracts were not separately specified in the official import statistics, and values only were stated. Since 1921, however, much more information has been publicly provided. Not only have the quantities imported been stated, but oak, chestnut, and quebracho extracts have been separately detailed. Particulars of oak extract are given in Table B 54. None of this is imported from the rest of the Empire, while more than half of it comes from Italy. The statistics of chestnut extract are set out in Table B 55. The whole of this is imported from foreign countries, in 1921 and 1922 France being responsible for three-quarters of it, and Italy for the bulk of the remainder. The imports from France are only about one-half of those of pre-War days. During the War substantial quantities of chestnut extract were imported from the United States, but this material was unpopular with tanners here, and in the past few years very little has been received. Table B 56 gives the quebracho figures, which include a small proportion from other foreign countries in addition to the bulk from Argentine, and the figures in Table B 21 indicate the extent to which the comparatively new wattle extract has found favour in this country in comparison with quebracho extract.

The quebracho forests of South America, though extensive, are limited. The time of growth is enormous, and the trees are not replanted to replace those which are cut down. While quebracho extract is an astringent wood extract, wattle extract is a pure bark extract, with which it is possible to tan completely and not only in conjunction with other materials. It comes from a tree which reaches maturity in six to eight years and can be readily regrown as soon as it is cut down. There seems little doubt that the use of wattle bark and wattle extract in Great Britain will steadily increase as the use of quebracho diminishes.

In Table B 57 are given the figures of imports of all other tanning extracts other than oak, chestnut, and quebracho. As the country of origin is given, there is a substantial amount of evidence available of the varieties of the various extracts. That from Natal, for example, is entirely wattle extract, from Turkey and Smyrna valonia extract, and from India mainly myrobalan extract. Over 80 per cent of these other extracts are from Empire countries, but an appreciable proportion (amounting to about 25 per cent by value in 1922) is re-exported. Neither weight nor value is entirely satisfactory as a measure of tanning materials for statistical purposes, as these materials vary considerably in tanning content. For the purpose of making an adequate comparison of tanning materials used in the pre-War and post-War period, accordingly, it is useful to express the imports, etc., in terms of tannin units. From the information available concerning imports, exports, and production, Table B 21 has been compiled to afford a comparison of the consumption of the various

tanning materials in 1922 and 1913. The quantities for 1913 had to be computed from the known values of the imports and re-exports. This table shows that the consumption in tanning units in 1913 was 44,000 tons, and in 1922, 42,500; and that of the former 40 per cent came from the Empire, while in 1922 the figure was 57 per cent. The chief features brought out by the table are the large increase in wattle bark and wattle extract (the latter was not manufactured in 1913) from the Empire, and the falling off in chestnut extract and valonia from foreign countries. Expressed in terms of tanning units, wattle is easily first in importance now for British tanners, though in 1913 it was far down on the list. The order of importance by unit of tan of the seven chief materials is as follows :—

	1922. Units of Tan.	Position in 1913.
1. Wattle (bark or extract)	12,570	5
2. Myrobalans	8,670	2
3. Chestnut	7,030	1
4. Quebracho	6,740	4
5. Valonia	1,940	3
6. Sumach	1,440	6
7. Gambier	1,420	7

During the War rather more than one-third of the vegetable tanning materials imported were used in the half-dozen tanning extract factories in this country, the remainder going direct to tanners. At that time the extract factories were producing twenty-eight different brands of extract, most of which were used by tanners, though a proportion was consumed for dyeing purposes.

Some of the materials used to the greatest extent (e.g. wattle bark, myrobalans, and quebracho) were standing at about the same price at the end of 1923 as before the War. Others, notably gambier and sumach, showed a marked increase in price, but the consumption did not fall off to the extent which might have been expected.

The approximate pre-War prices in comparison with those holding towards the end of 1923 are as follows :—

	Average 1911-13. Per ton.	1923. Per ton.
	£ s. d.	£ s. d.
Chopped wattle bark	8 0 0	8 5 0
Sumach	10 10 0	19 10 0
Myrobalans	7 5 0	6 17 6
Gambier (black)	24 0 0	47 10 0
„ (cube)	41 0 0	77 10 0
American chestnut extract	10 0 0	—
French „ „	12 0 0	18 0 0
Hemlock extract	14 0 0	18 0 0
Quebracho (soluble)	18 10 0	18 5 0
Valonia	11 0 0	11 10 0
Wattle extract	—	20 0 0

## CHEMICALS

Very little information is available regarding the consumption of chemicals by tanners and curriers. It has been estimated that the present rate of consumption of synthetic tannins is about 3000 tons per annum, and particulars of the consumption of chrome materials and chemicals in the War year 1917 are given in Table B 124. In the aggregate these figures are probably 20-30 per cent in excess of the present rate of consumption, while the corresponding difference in individual items may be very much more.

## LEATHER INDUSTRY

The last few paragraphs have set out the position regarding the supply of hides, skins, tanning, and other materials for the industry. We now go on to give particulars of the industry itself. The bridge from the one part of the subject to the other can conveniently be made by means of Tables B 22 and 23, which set out, by quantity and by value, the imports in 1913 and 1922 of the various materials according to port of arrival. This information is of interest not only with reference to the circumstances attending importation, but also throws certain light on the geographical distribution of the industry itself. It is clear from Tables B 22 and 23 that not only is Liverpool the most important port of importation for hides and tanning materials, but that also the extent of that importance increased between 1913 and 1922. In the former year 40 per cent of the hides and 46 per cent of tanning extracts were imported via Liverpool; in 1922 the corresponding proportions were 60 per cent and 74 per cent respectively. London is the second port for hides, a long way behind Liverpool. London is easily first, however, for sheepskins and goatskins, but, as previously pointed out, there is a considerable trans-shipment trade in these commodities. Tables B 22 and 23 indicate five of the chief centres of the leather producing industry, viz. Liverpool, London, Bristol, Hull, and Glasgow. Other centres are Leeds and the Walsall area, while a substantial number of tanners are distributed throughout the country, Lancashire being the most prominent county for sheepskins, on account of the manufacture of roller skins for cotton spinning.

The important operation of currying of leather is carried on chiefly in London, Walsall, Northamptonshire, and Leeds and district, but also in many other places. Leather for gloves is manufactured in the West of England and other districts.

The total number of employees engaged in tanning and leather dressing according to the Census of Production in 1907 was 29,000. (See Table B 10.) The census of 1911 gives the following table for England and Wales of the numbers engaged in the hide, leather, and allied trades :—

Occupation.	No. of Employers.		No. of Employees.		No. on own Account.	
	Males.	Females.	Males.	Females.	Males.	Females.
Furriers and skimmers . . . .	751	64	7,535	5,481	240	128
Tanners . . . . .	338	3	10,202	34	29	—
Curriers . . . . .	613	11	14,485	1,049	158	5

# GREAT BRITAIN AND IRELAND

69

Occupation.	No. of Employers.		No. of Employees.		No. on own Account.	
	Males.	Females.	Males.	Females.	Males.	Females.
Leather goods, port-manteaux, bag and strap, etc., makers	710	45	9,609	7,482	310	59
Saddlers: harness, whip makers	2,909	150	15,024	3,287	2,978	40
Skins, leather, hair, and feathers—dealers in	1,497	82	4,845	1,119	932	95

The figures for Scotland are not given in the same form, but are as follows:—

Occupation.	Males.	Females.	Total.
Furriers and skinners	770	263	1,033
Tanners	987	16	1,003
Curriers	619	—	619
Leather goods makers	1,048	240	1,288
Saddlers: harness, whip makers	1,666	93	1,759
Dealers in skins, leather, etc.	309	55	364
Commercial travellers	132	—	132
„ or business clerks	186	134	320
Others	364	142	506

Nearly 40 per cent were in Glasgow and surrounding county, 15 per cent in Edinburgh and surrounding county, and 9 per cent in Renfrewshire. The 1921 figures are not yet available.

In comparing these last tables with the figures for 1907 it is necessary to remember that they are compiled on a different basis. At the census of population the individual is returned according to his own statement, and men might be returned as "General Labourers" who are in fact employed in a tan-yard. It is probable that the census of population understates the number of employees in the leather industry, and in this connection it may be pointed out that the estimated number of insured persons engaged in tanning, currying and leather dressing in July, 1923, determined under the Unemployment Insurance Act was 41,820, of whom 33,230 were males. The census of 1911 showed the greatest number of tanners in Lancashire, followed by the West and East Riding of Yorkshire and afterwards by London, Cheshire, and Gloucestershire.

The greatest number of curriers was returned in the West Riding of Yorkshire, followed by London, Northamptonshire, Staffordshire, and Lancashire. Over 40 per cent of the leather goods manufacturers were returned in London, being followed by Lancashire, West Riding, Staffordshire, and Warwickshire. Nearly two-thirds of the furriers and skinners were in London and Essex, Lancashire being the only other county with a substantial number of operatives. The position was similar with regard to dealers in skins, leather, and feathers.

Numerically, as an employer of labour, the leather industry stands comparatively low, the bulk of the capital employed being disposed of in the purchase of raw materials.

The number of tanners in Great Britain is nearly 400; of these 100 tan sole leather, two-thirds of whom probably tan nothing else; 140 tan rough leather to be passed on for currying for various purposes, and of these 60 per cent do nothing else. There are about 25 tanners of chrome upper leather, of whom about 10 are tanners of glacé kid. Approximately fifty firms are tanners of strap butts for belting, but only a small number of these restrict themselves to this work, a large number of them tanning also rough leather and sole leather. Nearly 30 firms are engaged in the manufacture of leather for textile purposes, only a few of these doing work other than the production of textile leathers. About 100 are tanners of sheepskins, and of these about 85 do nothing but sheepskins.

#### EMPLOYEES' AND EMPLOYERS' ORGANISATIONS

Reference may be made here to the general conditions of employment in the leather industry and to the various industrial organisations through which changes in these conditions are negotiated.

The employees in the leather industry in the United Kingdom are divided into two sets of Unions, the "Craft" Unions and the "Non-Craft" Unions. The "Craft" Unions, except those concerned with men engaged on patent leather, enamelling, and graining, are federated together in the National Leather Trades' Federation, while the "Non-Craft" Unions are all members of the National Federation of General Workers. For a long time there was considerable antagonism between the two sets of Unions. In recent years, however, fairly close co-operation has grown up between them, and the employers' representatives in the last two years have met the two sections of the Unions together at the same table.

On the employers' side, labour matters are managed through the Leather Producers' Association for England, Scotland, and Wales. This Association is an affiliation of a number of local associations formed for the purpose of dealing with labour matters.

The first agreement came to between the two negotiating bodies referred to, related to the general adoption of the 48-hour week. This was in 1919. There is no fixed rule as to the method by which the 48 hours is worked, and there is a good deal of diversity in practice. A few firms complete the whole of the 48 hours in five days, but the majority work on Saturday.

The whole of the wages adjustments which have been necessitated since the close of the War have been carried through by negotiations between the Leather Producers' Association on the one hand, and the representatives of the two Union Federations on the other. At times, as in many other industries, some very difficult problems have had to be faced, but these have always been met in a harmonious spirit, and in the whole of the period no serious labour difficulties have arisen in the industry. Perhaps the biggest piece of work accomplished through these joint negotiations was that of the drawing up of a complete classification of operations according to grade of skill involved in tanning and currying. On the basis of this classification the various basic rates of wages have been determined. The basic rate system was first initiated in

March, 1920, and the actual rates, which vary according to district, have been modified on various occasions. The "basis" rates are actual "time" rates paid according to grade skill. More than 75 per cent of the wage earners in the industry, however, are paid by "piece," and it is part of the agreement that piece-work rates shall be such as to enable an able-bodied average man to earn at least 25 per cent in excess of the corresponding day-work earnings for a full working week.

Owing to the extreme complication of the industry no attempt has been made to draw up a general piece prices bill. There is comparatively little standardisation of machinery or method either in the tanning or currying side of the industry, and a fixed "rate" would result in men of equal skill and ability making quite different earnings at the end of the week. The fundamental theory underlying the arrangement is that a man working on the same operations in two different works with the same speed and skill should be in a position to earn the same amount at the end of the week in each case, even though one works may possess extra conveniences in some respects than the other. In one end of the industry, however, viz. currying for harness, saddlery, bag work, etc., it was possible, after a task of very considerable magnitude, to draw up a piece prices list, known as the "Green Book of Prices."

Other conditions affecting labour in the leather industry were determined by an Award (No 437) of the Court of Arbitration early in 1919 (before the negotiating functions of the employers' and employees' organisations were fully functioning). This Award has subsequently been modified in various respects by negotiation between the Unions and the Leather Producers' Association, and is now principally of importance as governing the conditions under which overtime is worked.

In connection with labour conditions the subject of anthrax should be referred to. Anthrax is a scheduled industrial disease, and action is taken on the first signs appearing in anybody connected with the industry. Serious cases of anthrax among men handling hides at the docks are not uncommon. Cases in tan-yards are less frequent, probably on account of the greater precautions taken. The facilities available in the tanning district of Bermondsey are so complete that no special anxiety is now felt at reports of anthrax occurring there. This is very largely due to the skill shown by the staff of Guy's Hospital, who have specially studied the disease, and nearly all the men who have contracted the disease in Bermondsey in the past few years have completely recovered in a short while. Recently, too, similar special arrangements have been made in another tanning centre, at Warrington. The activities of the International Labour Office in the last few years on the subject of anthrax (but mainly in connection with the handling of wool, hair, and bristles) have brought a good deal of public attention to this matter. At the Third International Labour Conference a Committee of Investigation into Anthrax was appointed.

This Committee met in London in December, 1922, under the chairmanship of Sir Wm. Middlebrook and issued a report early in 1923. The greater part of this report is devoted to the risks arising from anthrax in the handling of wool, hair, and bristles and the means of lessening the danger of anthrax from

animals. The resolution adopted by the Committee with regard to hides and skins may, however, be quoted in full :—

“ The Committee is of opinion that in most countries the principal danger of industrial anthrax arises in the manipulation of hides and skins, and recognises the impossibility of securing at the present time complete disinfection to protect against this danger.

“ The Committee therefore recommends that Regulations be laid down in the different countries having for their object the protection of the workers and the soil against infection by anthrax from hides and skins.

“ The Committee further suggests that the International Labour Office, in conjunction with the Health Committee of the League of Nations, should organise international research and invite nations and organisations chiefly interested to undertake such research in their respective countries.

“ The Committee considers that in view of the fact that all countries using infected materials will benefit by the discovery of a satisfactory process of disinfection it is desirable that the Governing Body should take into consideration the possibility of finding grants in aid of research undertaken for that purpose.”

The expression of opinion in the first paragraph of the resolution declaring hides and skins the chief source of danger has created considerable surprise. It is pointed out that in most cases of anthrax arising from the handling of hides and skins the infection is local, being generally due to the entry of anthrax spores through a crack or cut in the skin. In this form the disease is easily dealt with if it is taken in its early stages. The principal requirements are immediate diagnosis and prompt treatment. In the case of anthrax among wool sorters and similar classes of workpeople, however, the infection is more commonly due to the spores being inhaled along with dust into the lungs. This form of the disease is much more difficult of treatment and the chances of recovery much slighter.

An important report on the subject of infection of anthrax from hides and the means of disinfection by Dr. H. Leymann has been published by the International Labour Office and is referred to in the Bibliography.

#### OFFENSIVE TRADES

Section 112 of the Public Health Act of 1875 specifies among other trades “ fellmonger ” and “ any other noxious or offensive trade, business, or manufacture ” as “ offensive trades,” and Section 113 of the Act gives power to any urban authority from time to time to make by-laws with respect to any offensive trades “ established with their consent either before or after the passing of the Act, in order to prevent or diminish the noxious or injurious effects thereof.” By subsequent development of legislation in 1907, the local authority may declare by order, confirmed by the Local Government Board (Ministry of Health) and published in such manner as the Board may direct, any other trade, business, or manufacture to be an offensive trade. The question as to whether

any trade other than those expressly mentioned in the Act are offensive trades is one which is often found to require careful consideration, and the Local Government Board (Ministry of Health) consider that there is a *priori* reason for assuming that the trades of leather dressing, tanning, glue making, and size making should be considered as offensive trades. They have accordingly drawn up a series of model by-laws to be of help to local authorities in those cases where the local authority considers that there is a case for scheduling a factory carrying on one of these trades within its area. In the well-established tanning centres throughout the country no difficulties under this Act have arisen, but from time to time in the smaller areas, where there is probably only one such factory, applications have been made by the local authorities for an order. It has been found by experience, however, that the Ministry of Health scrutinises extremely closely such applications, and does not take action which may hinder the development of industry if properly carried on.

#### DISPOSAL OF EFFLUENT

In recent years the subject of the disposal of tannery effluent has in a number of instances caused considerable difficulty. The law on the subject was made clearer by certain clauses in the Salmon and Fresh-water Fisheries Act which was passed in the 1923 Session of Parliament. As the Bill was originally drafted only persons and firms who had legal right to discharge effluent into streams were safeguarded, that right being obtained by ownership or by prescription, the latter only being possible in those cases where the same process had been in operation for twenty years prior to the passing of the River Pollution Act of 1876. The manufacturers generally felt that some protection should be given to industries which, constrained through force of circumstances to discharge effluents into streams, took all possible means to render effluents harmless. Accordingly an amendment was introduced which ensured that "A person shall not be liable to any penalty for any act done in the exercise of any right to which he is by law entitled or in continuation of a method in use in connection with the same premises prior to the passing of the Act." This safeguards the position of existing factories which continue to use the same methods. The question of the use of the term "method" has given rise to some discussion, and it has been ascertained, for example, that the change from a vegetable tanning process to a chrome process of the tanning method would not be construed as a change of method for the purposes of this Act in spite of the fact that the effluent from chrome tanning would be more deleterious to fisheries than the effluent from vegetable tanning.

#### RAILWAY RATES AND CLASSIFICATION OF GOODS

The subject of railway rates is one of very considerable importance, particularly to the tanning end of the leather industry. Over 75 per cent of the capital of a tanner is spent on raw materials. Although, owing to the proximity of many tanneries to a port, the railway haul in these cases is not great, in



many other cases a railway rate of from 30s. to £3 per ton has to be paid on hides and materials averaging probably not more than £60 per ton. In other words, railway charges on raw materials may run up to 5 per cent on the very large capital expended on materials. The great bulk of the leather produced has to be carried by rail at a rate exceeding on the average £2 per ton on a value averaging, probably, about £150 per ton. Taking raw materials and leather together, the industry probably bears, throughout all its phases, a railway burden exceeding on a low estimate £250,000 per year. Accordingly, considerable attention has been given to safeguarding the interests of the tanning industry in the reorganisation of the railways since the War. Under the Railway Act of 1921 all goods carried on the railways are classified under one or other of twenty-one headings. There is a standard rate for each class, but the bulk of the goods carried for the leather industry are carried at exceptional rates. Owing probably to its antiquity the leather industry has obtained a large number of exceptional rates.

#### STANDARD CONTRACT

Previous to 1919 there was no standardised form of contract for the purchase of raw material in any section of the leather industry, and there is not yet any formal general arrangements for arbitration in case of disputes, though arbitration, occasionally of an unsatisfactory nature, is frequently resorted to. In the year mentioned, however, the Glacé Kid Tanners' Association agreed with the merchants and importers concerned on a form of contract regulating the importation of goatskins, and this has been used since and has given general satisfaction to all parties. A further form of contract applicable to all hides and skins has been the subject of informal negotiations between tanners and hide merchants for some time, and substantial agreement has been reached. Both merchants and tanners are anxious for the general adoption of a standard form of contract and look forward also to the development of an arbitration panel, with formal rules, under the auspices of the Federations concerned, from which panel arbitrators may be selected by the parties interested in case points of disagreement arise requiring decision under the standard contract.

#### MEASUREMENT OF LEATHER SOLD BY SUPERFICIAL AREA

The selling of leather by superficial area is a matter not free from difficulty. Not only does the leather itself expand and contract according to atmospheric conditions, but no means have yet been contrived to obtain the exact measurement of a piece of leather in the same way, for example, as it is possible to give the exact weight of a commodity sold by weight. A number of machines are available for the measuring of the area of leather, but not even the best of these can guarantee exact measurement.

In 1919 the Government passed an Act termed the "Weights and Measures (Leather Measurement) Act, 1919." This Act required that if any person or firm had a machine for measuring leather, and that particular type of machine were approved by the Standards Department of the Board of Trade, then the

machine had to be stamped and was subject to inspection. The Act did nothing to meet the contention of many manufacturers that the person operating the machine is a more important factor in ensuring correct measurement than the machine itself. Owing to the deficiencies which became apparent through the operation of the Act, in 1922 a further Bill was drafted entitled "A Bill to extend the powers of the Board of Trade to make regulations with respect to Measuring Instruments used for Trade." This Bill was not designed to deal specifically with leather, but would apply to all measuring machines whatever the material on which they operated. In effect the Bill would extend the power of the Board of Trade under the Weights and Measures Act of 1904 to enable it (the Board) to make regulations "to apply to any such measuring instruments used for trade as are specified in the Regulations, any of the provisions, including penal provisions, of the Weights and Measures Act, 1878-1904, with respect to weights, measures, and weighing instruments." This Bill, however, has not been proceeded with.

In many sections of the trade complaints of bad measurement are extremely rare; in other sections, however, complaints are more frequent and particularly with regard to imported leather. The various Federations, concerned are extremely anxious to afford every safeguard to the buyer of leather that he is obtaining the measurement which he pays for, and schemes are under consideration by which this can be afforded. The Federations concerned have discussed the question of margin of errors which should be permissible in the measuring of the various types of leather, and proposals have been made for the formation of a panel of measuring machines which could be used in cases of dispute as arbitrators between buyer and seller.

Recently the following "margins of errors" have been agreed by the various Federations concerned :—

	Per cent.
Motor, coach, bag, and case hides . . . . .	1½
Upper leather—	
Kip, calf, patent, and split leathers . . . . .	2
Chrome, box, side, and calf . . . . .	2
Glacé kid . . . . .	2½
• Bellies . . . . .	3
Light leathers—	
Soft suède and velvet leathers . . . . .	3
Goat and other firm-finished fancy leathers . . . . .	2
Skins, firm finished . . . . .	1¼

#### OUTPUT OF LEATHER

Statistics of the output of leather in Great Britain are extremely meagre. Table B 9 gives the particulars provided by the Report of the Census of Production in 1907, but it will be noticed that these are in the most general terms, and do not provide, for example, information of the production of sole leather or upper leather. Records of War production are available but no post-War

## LEATHER, HIDES, AND SKINS

records can be given. Using the data obtained during the War as a means of drawing inferences from such information as is available for other periods, some approximate estimates may, however, be made.

In the first place, returns of leather produced, other than sheepskin leather, gave the following figures for the production of tanned leather in 1917 and 1918:—

	1917. Tons.	1918. Tons.
Vegetable tanned sole leather . . .	38,500	36,800
Other vegetable-tanned „ . . .	65,800	66,800
Chrome-tanned sole „ . . .	1,100	1,900
„ upper and other leather . . .	12,000	13,100
Total . . . . .	117,400	118,600

In 1917 also particulars of the quantity of leather produced from each type of hide were worked out as follows:—

	Weight of Hide. Tons.	Weight of Leather produced. Tons.
Ox and heifer . . . . .	51,670	34,100
Cow . . . . .	16,450	10,850
Bull . . . . .	2,700	1,780
Calf and kip . . . . .	14,020	4,690
Horse . . . . .	1,890	1,260
Wet-salted hides . . . . .	30,690	27,620
Dry and dry-salted hides . . . . .	25,720	34,960
	143,140	115,250

As the former figures include those of some leathers, e.g. chrome goatskins, not included in the latter, the agreement between the two sets of figures is satisfactory. The same method may be applied to indicate approximately the corresponding production in 1913, 1921, and 1922.

The particulars of the hides are approximately as follows:—

	1913. Tons.	1921. Tons.	1922. Tons.
Native hides . . . . .	74,000	79,000	78,000
Wet-salted hides . . . . .	29,000	24,000	26,000
Dry and dry-salted hides . . . . .	18,000	5,000	17,000

and the corresponding figures for the production of leather are:—

	1913. Tons.	1921. Tons.	1922. Tons.
From native hides . . . . .	49,400	52,700	52,000
From wet-salted hides . . . . .	26,100	21,600	23,400
From dry and dry-salted hides . . . . .	24,500	6,900	23,100
Total . . . . .	100,000	81,200 *	98,500

The results for 1921 and 1922 are hardly likely to be such reliable measures of

the actual production in those years as are the figures for 1913 and the War years, since the imports of hides in the post-War years were probably not such reliable measures of the actual input of hides by the tanner. In reaching the above conclusions the following factors have been used for the conversion of weight of hide into weight of leather, these being based upon *averages* obtained in the War period.

	Per cent.
Native hides . . . . .	66
Native calfskins . . . . .	33
Wet-salted hides . . . . .	90
Dry and dry-salted hides . . . . .	136

The production in 1922 was almost up to the pre-War level, but each were about 15 per cent below the level reached in 1917.

Turning now to particular classes of leather, the production of sole bends, rolled and rough shoulders and rolled and rough bellies in the War period 1917-18 was at the rate of

Bends . . . . .	750 tons per week
Shoulders . . . . .	250 " " "
Bellies . . . . .	430 " " "

Of the 250 tons of shoulders, approximately 70 tons were obtained from hides not used for sole leather, and of the 430 tons of bellies, 130 tons were from similar hides.

It is not possible to separate rough offal from pinned. Of the bends, approximately 40,000 were from native hides, leaving 30,000 hides weekly for the production of heavy rough leather of the nature of strap butts, dressing hides, harness butts, etc. Practically the whole of the imported wet-salted hides are used for sole leather, and probably at least 80 per cent of the imported dry and dry-salted hides (the bulk of the remainder going for upper leather). It is more difficult to estimate the number of native hides used for sole leather in 1921 and 1922. The number used for strap butts and for a number of purposes mainly of military utility other than sole leather was certainly less than in the War period referred to. On the other hand, the use of these hides for motor-car work (involving probably 7000 hides per week), and for trunks, bags, etc., probably counterbalanced this, and possibly the error is not very large in assuming the supply of native hides for sole leather in 1921 and 1922 was not far different from the number in the War period referred to. On these assumptions, and making some allowances for the changed circumstances of the industry, we get the following figures of the output of leather from hides tanned for sole leather :—

	War Period. Tons.	1921. Tons.	1922. Tons.
Sole leather from native hides . . . . .	12,000	12,000	12,000
" " " wet-salted hides . . . . .	27,000	21,000	23,000
" " " dry and dry-salted hides . . . . .	27,200	5,500	18,500
Total . . . . .	66,200	38,500	53,500

## LEATHER, HIDES, AND SKINS

No figures for 1913 are given since there is nothing on which to base an estimate of the number of native hides used for sole leather. It is not possible to state how much of the leather produced was rough offal, except for the War period.

It must be emphasised that these estimates are of necessity approximate, but in the absence of more exact information can be taken as roughly representing the truth. It is of interest to note that the production in the United States in 1921 (a year of depression) according to the Census Act of 1920 was 18,063,000 sides (as against 19,716,000 in 1919).

For the purpose of completing the view, as far as possible, of the sole leather industry in Great Britain, reference may be made to the article on Sole Leather Production in the *Leather Trades Year Book* of 1919-20. In that article details were given of the magnitude of the output of heads by tanners of sole leather. From these details relating to 1917, the following summary has been obtained to indicate the size of sole leather tanneries :—

Output of Bends per week.	No. of Tanners.
Under 75 . . . . .	21
75-500 . . . . .	26
500-1500 . . . . .	21
1500-2500 . . . . .	22
2500-5000 . . . . .	15
5000-7500 . . . . .	1
Over 7500 . . . . .	2

Table B 24 gives full details of the output of sole leather for one year (1917) and will be useful in showing the output falling under the various weight categories. In the article referred to, the pre-War output was estimated at 53,900 tons, compared with 66,600 tons in 1917, and the following table was given to indicate approximately the position of various countries as producers and consumers of leather :—

Country.	Year.	Production. Tons.	Net Imports or Exports. Tons.	Consumption. Tons.
Germany . . . . .	1910	70,700	E. 4,300	66,400
United States . . . . .	1909	140,000	E. 14,300	125,700
Australia <sup>1</sup> . . . . .	1914	17,200	E. 2,700	14,500
United Kingdom . . . . .	1917	66,600	I. 6,200	60,400

<sup>1</sup> Includes some belting leather.

## IMPORTS AND EXPORTS OF SOLE LEATHER.

It is convenient to deal at this stage with the subject of the imports and exports of sole leather. The Customs returns before 1920 did not separately specify sole leather either in the imports or the exports. By means of a detailed comparison with the returns for other countries, however, an estimate of the average imports for 1912-16 (but not of the exports) can be given. The imports and re-exports of sole leather in 1921 and 1922 are shown in detail in Table B 59.

The net imports in 1921 were about 5,000 tons and in 1922, 7,290 tons. About 40 per cent came from the Empire in the former year, but less than 30 per cent in 1922. The estimate of the average imports from 1912-16 is 24,000 tons. The United States is by far the most important country in the list (55 per cent of the total in 1922), but Australia and Canada are also appreciable suppliers. In 1922 a fair amount came in from the central European countries, but this was mainly offal or cheap bends.

The exports of sole leather from the United Kingdom in 1921 and 1922 are shown in Table B 96. In the earlier year they amounted to 5,400 tons (exceeding the net imports) and in 1922 to 3,400 tons. No estimate can be given for 1913. About 90 per cent of the exports go to foreign countries, the United States being by far the most important customer.

In view of the difficulty of determining the amount of sole leather offal produced, the figures we have given of production and of imports and exports of sole leather do not permit of a reliable estimate being made of the consumption of sole leather. Certain pre-War figures of consumption of leather (to be referred to later in connection with upper leather) were obtained by the Boot Manufacturers' Federation, but these were considerably defective on the sole leather side.

Various computations have been made from time to time of the consumption of bends by repairers. From these it would appear that about 40 per cent of the bends produced in Great Britain are used for repair work. This is equivalent to something in the neighbourhood of 50,000 bends weekly.

#### IMPORTS AND EXPORTS OF UNDRESSED HIDE LEATHER

Owing to the method of compilation of the Customs statistics it is most convenient to discuss the imports and exports of other undressed hide leather at the present stage. Table B 58 shows in detail the imports and also the re-exports for 1913, 1921, and 1922. The figures for the last two years have been compiled from the details set out in Tables B 59, 60, and 63. The net imports (less re-exports in the three years) were :—

	Tons.	£(000).
1913 . . . . .	37,300	3,852
1921 . . . . .	9,050	1,480
1922 . . . . .	15,700	2,054

Only 40 per cent of this leather came from the Empire in 1913, but 59 per cent and 54 per cent respectively in 1921 and 1922. By far the biggest contribution is that from the United States, 18,100 tons in 1913 (probably mostly sole leather, according to the indication given by the 1921 and 1922 figures). Next in importance are the tanned kips from India, referred to in detail in Section C. These kips are almost entirely used for upper leather, and are the foundation of a large industry in Northamptonshire and the Leeds area. The industry languished before the War, but revived to a marked extent during the War, and was indeed almost the sheet anchor for the supply of upper leather for the

boots of the British and Allied Armies. Since the War it has not generally flourished, and its future for the use of boots manufactured in this country is not, at the moment, clear. In certain grades, however, there is a keen demand for the products of these kips in the United States.

The corresponding figures giving the exports of undressed hide leather are shown in Tables B 95, 97, 99, and 100. From these tables the following summary figures are obtained :—

		Tons.	£(000).
1913	. . . .	7,000	1,244
1921	. . . .	8,100	1,454
1922	. . . .	7,500	1,504

The pre-War volume of exports has been well maintained ; more than 90 per cent went to foreign countries, but there has been a marked change in the relative order of importance of the countries as customers, and the change in the relative position of France and the United States in this respect is worth setting out in detail, and comparing with the corresponding position of these countries as suppliers of leather to us. The export figures (by value) are as follows :—

	1913 £(000).	1921 £(000).	1922 £(000).
France . . . .	330	233	516
United States . . . .	269	358	555

The corresponding import figures are :—

	1913 £(000).	1921 £(000).	1922 £(000).
France . . . .	32	189	120
United States . . . .	1,589	480	561

Our imports from France have multiplied fivefold (average of 1921 and 1922) over pre-War, but from the United States they have fallen to one-third of their pre-War value. Our exports to France, on the other hand, increased by only 12 per cent (average of 1921 and 1922), but our exports to the United States nearly doubled. The explanation of these facts, of course, is that francs have depreciated relatively to sterling, while sterling has itself depreciated relatively to dollars. A further important factor in the case of the United States is that leather is one of the very few manufactured or semi-manufactured articles which is not subject to an import duty.

The present is a suitable place to refer to some other figures which can be given of the production of heavy leather. These relate to belting and textile leather. Practically none of the heavy leather used for civilian purposes, bags, trunks, upholstery, etc., was produced during the War, and no information regarding it was accordingly obtained. Estimates of post-War production of these leathers can only be in the nature of guess-work.

## LEATHER BELTING

Table B 9 gives the production of leather belting in 1907 at 109,000 cwt. (of which 40 per cent was exported). This would represent about 125,000 cwt. of belting butts. War-time information gave the average weight of a belting butt at about 25 lb., so that the number of butts used exceeded 55,000 in the year. The production was diminishing towards the end of the War and for the whole of 1918 was about 400,000 butts, there having been a substantial falling off in exports, referred to later. There are very few data for an estimate for the production in 1921 and 1922. The falling off in exports in these two years would account for a diminished production of 27,000 cwt. in each year as compared with 1907, and it is most probable that the consumption at home was well below the 1907 level. Moreover, there was possibly an increase in the use of woven hair, cotton and rubber belting in place of leather (see Tables B 116 and 117 for the exports of these other kinds of belting), and from these facts it would seem that the annual production did not exceed 75,000 cwt. in 1921 and 1922, as compared with the corresponding figure of 109,000 cwt. in 1907 and was probably lower. It is interesting to note in this connection that the figures for production in the United States have shown substantial increases from 1909, the figures according to various censuses taken there being:—

	Butts,
1909 . . . . .	521,000
1914 . . . . .	647,000
1919 . . . . .	1,483,000
1921 . . . . .	1,195,000

These figures are in striking contrast to those for this country, and there is no doubt that the leather belting industry in this country has not made headway in recent years, and the inferior position relatively to that of the industry in the United States is not entirely accounted for by loss of export trade.

The statistics of the import of leather belting are given in detail in Table B 86, while the corresponding exports are set out in detail in Table B 115. The imports are comparatively unimportant and consist mainly of round leather belting. The exports, which, as previously pointed out, represented 40 per cent of the production in 1913, showed 60 per cent to foreign countries pre-War, but less than 50 per cent in 1921 and 1922. The chief foreign market before the War was Russia, and the loss of this market has in itself meant a lessening in production of the equivalent of 50,000 to 60,000 strap butts per year. India was the biggest Empire market for British belting, and was indeed the biggest market of all countries. The falling off to that country has been large also, and is probably equivalent to 40,000 butts per year.

On account of their importance as competitors to leather belting, statistics are given of the imports and exports of (a) woven hair and cotton belting and (b) machinery belting other than woven hair or cotton. (See Tables B 87 and



88 for imports and Tables B 116 and 117 for exports.) An examination of the export tables appears to give a clear indication of the advance of other forms of belting over leather belting, but a detailed analysis on this point is not called for in this place.

#### TEXTILE LEATHERS

A little miscellaneous information is available regarding the use of leather for textile purposes. Under the circumstances existing during the War about 3000 native hides per week were required for wool-combing machinery, but this figure has probably been reduced at the present time. During the last year or two of the War about 3,500 buffalo hides per week were used for the manufacture of buffalo pickers. About 50 per cent of the resultant product was exported, India taking more than half the exports, chiefly for her jute mills. In addition there is some information available concerning sheepskin leather for roller covers for cotton mills, but this can most conveniently be referred to under sheepskin leather production (see p. 89). No details are available regarding the imports or exports of textile leather, these, presumably, being included in each case as unspecified leather manufactures.

The information available regarding the leather used in 1917 for various mechanical purposes may be summarised as follows :—

	Monthly Average.
Curried butts for leather machine belting . . . .	36,700
“ “ “ other mechanical purposes . . . .	2,500
Rough strap butts for mechanical purposes . . . .	650
Dressing hide butts or split hides for picking bands . . . .	1,700
“ “ “ “ hose butts . . . .	900
“ “ “ “ hydraulic leather . . . .	400
“ “ “ “ condenser rubber leathers . . . .	1,300
“ “ “ “ roller covering leathers . . . .	1,200
“ “ “ “ combing leather . . . .	220
“ “ “ “ other mechanical purposes . . . .	750

#### UPPER LEATHER

The details of upper leather require to be treated under various headings. In the Census of Production of upper leather taken during the War, no fewer than 48 different categories of this leather were scheduled, and many of these could be readily subdivided. The main divisions of upper leather are (a) chrome; (b) vegetable; and the most convenient headings for present purposes are (a) glacé kid; (b) chrome calf leather; (c) vegetable tanned and curried upper leather; (d) other upper leathers.

#### GLACÉ KID

The pre-War requirements of glacé kid by boot manufacturers in this country were returned by boot manufacturers as 95,000,000 feet (including 20 per cent

for manufacturers not making returns). The imports in British official returns are given by weight and do not afford a very safe basis of estimation in terms of the unit universally adopted by the industry, viz. the foot of area. Inasmuch as practically all the pre-War imports came from the United States an indirect method of estimating import by footage is, however, possible. Table B 68 shows imports and re-exports, from which it will be seen that the net imports were 43,544 cwt. valued at £1,387,000; 96 per cent of the gross imports came from the United States, and we shall not be far wrong in applying the same proportion to the net imports. These lead to the figures of 41,800 cwt., valued at £1,332,000, as the imports from the United States. The United States official figures, however, are expressed in terms of feet, and the figure for 1913 was 43,890,000 feet of value 7,064,000 dollars (see Tables B 25 and 26), equal to £1,450,000 at pre-War exchange. Making some allowance for the freight and insurance in order that the two values may be comparable, the value of the exports from the United States to the United Kingdom is about 5 per cent above the corresponding figure for the imports into the United Kingdom from the United States, and accordingly the error in assuming that the 43,890,000 feet as stated by the United States returns is equivalent to the 43,544 cwt. referred to in the British returns is probably not more than the same percentage in error. From these figures it would appear that the imports into the United Kingdom in 1913 were in the neighbourhood of 45,000,000 feet. Comparing this figure with that of consumption above leads to 50,000,000 feet for the production in this country in 1913, but this figure, as will be shown later, is certainly higher than the actual truth.

Another way of approaching this problem is through the figures of imports of raw skins, but this method is subject to certain deficiencies. Table B 43 shows the imports of goatskins in 1913 as 12,095,000, and the re-exports 8,493,000, leaving a balance of 3,602,000 skins. As 5 feet to the skin (rather below the average figure for those manufactured in this country) the corresponding footage would be 18,000,000. In view of the long delay which may take place between importation and re-exportation the difference of the two figures may not adequately represent consumption of skins for a particular year. Taken in conjunction with the previous figures, however, it seems to be thoroughly justifiable to take the production in 1913 as approaching 20,000,000 feet, and the true figure may well be higher. At the same time, however, it would appear that the boot manufacturers' returns of consumption of this leather in 1913 were overstated, and if we take the total consumption at 65,000,000 feet (imports 45,000,000 feet and production 20,000,000 feet) we shall probably not be very far from the truth. The production before the War was accordingly nearly one-half of the imports, equivalent to nearly one-third of the consumption.

On the basis used above (viz. 43,890,000 feet, equivalent to 43,544 cwt.) the net imports into this country in 1921 and 1922, 12,600 cwt. and 28,400 wt. respectively, represent 12,700,000 feet and 27,300,000 feet. Using the basis of the number of imported skins the position of production in this country in 1921 and 1922 works out as follows :—

## LEATHER, HIDES, AND SKINS

	1921	1922
Skins imported . . . .	4,456,000	8,724,000
Skins re-exported . . . .	3,165,000	6,000,000
Retained . . . .	1,291,000	2,724,000
Corresponding footage . . . .	6,450,000	13,620,000

The circumstances of the imported goatskin trade in 1920-22 were very erratic, and there were probably many skins imported in 1919 and 1920 which were available for tanning in 1921 and 1922. The corresponding position for 1919 and 1920 is therefore of interest, and may be set out as follows:—

	1919	1920
Skins imported . . . .	10,526,000	11,942,000
Skins re-exported . . . .	5,803,000	4,425,000
Retained . . . .	4,703,000	7,517,000
Corresponding footage . . . .	23,520,000	37,580,000

It seems certain from these figures that some of these skins imported in 1919 and 1920 were carried over into the following year for consumption. It is possible to give corresponding estimates for 1923 (11 months). In that period the net imports of skins were 4,205,000, equivalent to a production of 21,000,000 feet of glacé kid, or nearly 23,000,000 for the whole year. The net imports of glacé kid in the 11 months were 25,961 cwt., equivalent on the above basis to 26,200,000 feet. Thus, while in 1921 and 1922 the production was approximately over one-half of the imports, for the more stable year, 1923, the production was slightly less than one-half. The position may be summarised in the statement that, whereas before the War production of glacé kid was one-third of the consumption, it is now about one-half of the consumption and is steadily increasing.

Some direct information is also available on the subject of the production of glacé kid at certain times. During 1918 the production as shown by monthly censuses amounted to nearly 20,000,000 feet in the year. Further, a special census taken in 1922 showed that the actual output in that month was 1,300,000 feet. Particulars were also asked of the greatest output in any one month during 1919-22, and also of the maximum monthly capacity. The answers showed that the maximum actual post-War output was 1,900,000 feet per month, equivalent to 23,000,000 feet per year, while the maximum capacity was 2,850,000 feet per month, or 34,000,000 feet per year, a figure far higher than the consumption (production plus imports) in 1921 and equal to 80 per cent of the figure for 1922.<sup>1</sup>

The figures here collected and published for the first time should be helpful in giving a proper perspective of an industry which has met with more than

<sup>1</sup> The preliminary figures for 1923 just available showed a net importation of 4,554,000 goat-skins and 27,900 cwt. of glacé kid. On the same bases as before, these figures indicate a production of 22,800,000 feet and an importation of 26,500,000 feet.

usual difficulties in establishing itself in this country, but which is without doubt steadily overcoming these. New factories have been started in 1923 and the prospects are not unfavourable. The American article, however, has the extremely great advantage that it is produced on a huge scale (54,000,000 raw goatskins were used there in 1919) and this assists in enabling boot manufacturers to obtain enough leather of a uniform character for large orders. The sole leather for 10,000 pairs of boots of identical character can probably be obtained from 500 cattle hides. The corresponding upper leather would probably require 6000 skins, and it is more difficult to get 6000 skins uniform in character and size than it is to get 500 cattle hides uniform. Nature is on the side of the big battalions in the production of upper leather to a greater extent than in sole leather.

These paragraphs on glacé kid may be closed by reference to the exports of glacé kid, which are by no means insignificant. These figures are set out in detail in Table B 106, from which it will be seen that in 1922 France and New Zealand were our chief customers. A proposed Customs alteration in the latter country will, if it becomes effective, seriously damage the British (as well as the Australian) trade to that country in favour of that of the United States. Using the basis referred to earlier, the exports in recent years may be summarised as follows :—

Year.	Feet.	Value. £
1920 . . . . .	2,680,000	303,000
1921 . . . . .	950,000	74,000
1922 . . . . .	2,120,000	123,000
1923 (whole year at rate of 11 months)	1,600,000	75,000

#### CHROME CALF LEATHER

The boot manufacturers' statement of the consumption of chrome calf and side upper leather pre-War was (allowing 20 per cent for firms not making returns) :—

	Feet.
Box calf . . . . .	31,200,000
Willow calf . . . . .	9,200,000
Veals . . . . .	10,700,000
Box sides . . . . .	18,800,000
Heavy dull sides . . . . .	8,700,000

It is not possible to deal with these calf leathers in the same clear-cut way as glacé kid. In certain instances figures of chrome side leather are included with those of chrome calf, and in most cases manufacturers of the one are also manufacturers of the other. The method of estimation which can be applied in the case of glacé kid cannot be helpfully used here, since there is considerable variation in the relation between weight and area of the skins. An interesting illustration of this, which has been the cause of wrong inferences concerning the state of the industry in high quarters, may be referred to. The exports

of box and willow calf upper leather from this country in 1920 were 10,894 cwt., valued at £244,605, or £22.4 per cwt. The imports into this country of box and willow calf from Germany in the same year were 13,607 cwt., valued at £535,407, or nearly £40 per cwt. The obvious inference first drawn from these figures was that the British producer was able to produce cheaper than the German manufacturer. In actual fact, however, the reverse was the case to an acute degree, the position being that the English production exported was of a heavy variety, giving possibly only about 250 feet to the cwt. for £22.4, while the German leather imported was of a much lighter kind giving, possibly, 500-600 feet to the cwt. for £40, and the important unit is the foot and not the cwt.

It is not possible to estimate the production of calf upper leathers. Not only does the native supply of skins introduce a factor of which very little, statistically, is known, but the imported skins, returned for Customs purposes, by weight are very variable and afford little indication of the footage forthcoming when tanned. Certain censuses were taken during the War, but the results were far from being a measure of normal production, since a number of the firms concerned were engaged on the production of military leathers. These censuses indicated that the production of calf upper leather in 1918 was about 5,500,000 feet, and of chrome side leather about 23,000,000 feet.

The most reliable post-War information obtained on the subject of chrome calf and side leathers is that afforded by a special census taken in March, 1922, when the industry was in a very depressed state. In that month the output of chrome side leather was 1,100,000 feet and of calf, 550,000 feet, a total of 1,650,000 feet. As in the case of glacé kid referred to above, figures of the maximum monthly production between 1919 and 1922 were obtained, and these, in the aggregate, were 2,660,000 feet of side leather, and 1,320,000 feet of calf, a total of 3,980,000 feet. The maximum capacity for production of chrome calf and side leather together was returned as 4,920,000 feet per month.

The figures given above of the requirements of boot manufacturers for calf and side leather total 78,600,000 feet, but the post-War requirements are almost certainly less than this figure. The figures of maximum capacity and maximum actual post-War production are at the rate of 59,040,000 feet and 47,760,000 feet respectively. It would appear, therefore, that the capacity for turning out chrome side and calf leather in this country is nearly 80 per cent of the requirements, and that production soon after the War actually reached to more than 60 per cent of the requirements.

Details of the imports of box and willow calf in 1913 and 1922 are shown in Table B 67. Corresponding figures of the imports of side leather are not known, but are included with certain other types of upper leather in Table B 70. Table B 67 shows that practically all the box and willow calf imported is from foreign countries, though in 1922 there was an appreciable item from Canada. The contribution attributed to Holland in that table really came from Germany, which is by far the chief outside source of supply. Quite a feature of the table is the reduction in the supply from France, this falling from 10,521 cwt. in 1913 to 1,388 cwt. in 1922. The imports from

Germany created special difficulties to tanners in this country during 1922 and 1923 owing to the exceedingly low prices at which the leather was sold. Germany has a substantial supply of calfskins, the export of which was prohibited and the price of which was much below the price of the skins to which the British tanners had access. In addition, the labour cost was much below that of the British article, and accordingly the British leather could not compete with the German, and for some time production almost ceased. Improvement in the boot manufacturing industry, however, and reduction in imports from the United States in consequence of exchange movements have been responsible for some improvement towards the end of 1923.

The exports of box and willow calf are shown in Table B 105, and it will be noted that these are of substantial magnitude, amounting to nearly £250,000 in 1922. France was by far the biggest customer in 1922, followed by the United States. South Africa, Canada, and New Zealand also took substantial quantities. The fact that imports from France have fallen considerably while exports to that country appear to have increased is curious, in view of the depreciation of the franc. The exports to the United States are almost entirely in the heavy varieties of box calf and also in side leather. Probably no section of the leather industry suffered in 1920-23 to the extent of the chrome calf upper leather industry, but, at the end of 1923, the prospects appear rather better than for a long time past, and there is no doubt that under equal conditions the English leather can hold its own. Prominent boot manufacturers have given testimony that the quality of the British leather is equal to any imported (in the case of willow calf it is said to be superior to any other) and the Admiralty which, before the War, expressly specified that imported box calf had to be used for the upper leather of seamen's boots will now only accept British leather, and is desirous that this leather should be stamped to indicate its British origin.

#### OTHER UPPER LEATHERS

Not much statistical information is available concerning other British upper leathers. The boot manufacturers' requirements of patent leather before the War were 11,000,000 feet per annum, but this class of upper leather is subject to a good deal of variation in demand owing to changes in fashion. The production in this country is small, probably not more than 500,000 feet, though there is a large production of patent leather for motor work. At the present time British patent upper leather is in great demand, but the trouble is that Trade Union restrictions prevent the training of suitable labour. If these restrictions could be modified a large increase in production would follow. Progress has, however, been made in this country, and the output at the present time, though small, bears comparison for quality with any imported. Particulars of the imports of patent, varnished, japanned, and enamelled leather are given in Table B 69, and do not necessarily relate only to upper leather, though it is certain that the amount included in the table which is not upper leather is small. Before the War three-quarters came from Germany, but since the War the bulk has come from the United States, though an appreciable quantity is also received

from Canada. The figures of exports of the United States to the United Kingdom (see Table B 25) give the feet age for 1921 as 8,450,000 feet, while the corresponding import figures for the United Kingdom were 11,050 cwt. On this basis (1 cwt. = 765 feet) the net imports in 1921 and 1922 were 11,700,000 feet and 13,500,000 feet respectively, so that the consumption was probably in the neighbourhood of 12,000,000 feet and 14,000,000 feet respectively in the two years.

The exports of patent and japanned leather are shown in Table B 104, but include very little upper leather. These exports are spread over many countries, but 75 per cent go to foreign countries.

The boot manufacturers' statement of consumption of semi-chrome upper leather before the War was 24,000,000 feet. The monthly censuses taken in 1918 showed the production then to be about 2,400,000 feet per month, or nearly 29,000,000 feet per year. Over 90 per cent of this was from Indian tanned kips, but the substantial quantity of 1,500,000 feet of semi-chrome box and willow calf are also included. No particulars can be given of the foreign trade in this leather, as the statistics are not separately specified in the Customs returns.

The boot manufacturers' statement of pre-War requirements of wax memel kips was 2,500,000 feet per year. The pre-War production of this leather was much in excess of that figure, and though some was exported it is probable that the figure understates the true consumption in this country. The 1918 census returns of the production of this leather throw no light upon the amount used for civilian purposes, as there was a huge production of this class of leather for military purposes. The total production in 1918 was round about 18,000,000 feet per year. Further reference to the importance of the Indian tanned kips in the leather supply of this country is made in the section on India.

The boot manufacturers' statement of the pre-War consumption of wax splits was 3,200,000 feet per year, and most of this was imported from the United States. During the War there was a substantial production in this country, amounting to 5,000,000 to 6,000,000 feet a year, but more hides were split at that time than was the case before the War. The United States figures of exports to this country (Table B 25) show that for 1921 the exports of grain and finished splits was 1,860,000 lb. and of wax and rough splits, 860,000 lb.

The only other individual types of upper leather of which any statistical information of pre-War requirements can be given are persians, sheep, and roams. The boot manufacturers' statement included about 5,500,000 feet under this head for a pre-War year. The 1918 censuses returned the amount of sheepskin upper leather produced as nearly 5,000,000 feet per year, of which 750,000 were chrome sheep. The amount of upper leather from vegetable-tanned goatskins was about 1,500,000 feet per year, making a total of vegetable-tanned upper leather under the two headings of 5,750,000 feet.

No information is available concerning the amount of suède leather required for uppers, nor of reptile and skin leather. These are, however, subject to large fluctuations in demand owing to fashion.

The total figures of the production of (a) outside upper leather ; (b) leather

for tongues; and (c) leather for linings in 1918 were approximately as follows:—

Substance.	Feet.	Cwt.	Estimated total feetage.
Under 1½ mm. . .	65,000,000	20,000	75,000,000
1½–2 mm. . .	35,000,000	50,000	55,000,000
Over 2 mm. . .	10,000,000	100,000	45,000,000
Tongue leather . .	—	—	5,000,000
Lining leather . .	—	—	12,000,000
Total . . .	—	—	192,000,000

It is not possible to express in terms of feetage the total imports and exports of leather. Reference has already been made to the figures for glacé kid, box and willow calf, and patent leather. Tables B 70 and 71 give the figures of imports of all other kinds of upper leather, while Table B 107 gives for 1922 the corresponding export figures. For 1913 the figures of exports of upper leather were not separated from those of other dressed leather.

Allowing for some estimation in certain items, the value of the imports (net) and exports of upper leather may be summarised from the various tables referred to as follows:—

	1913 £(000)	1921 £(000)	1922 £(000)
Imports (net) . . . . .	3,615	3,873	3,324
Exports . . . . .	500	648	944
Excess of Imports . . . . .	3,115	3,225	2,380

Very little can be said about the many other varieties of dressed leather produced in the United Kingdom. No statistics are available of the production of leather for harness and saddlery, trunks, bags, etc. With the rapid development of the manufacture of motor-cars in recent years the production of leather for upholstering of cars has also grown, and at the present time probably accounts for nearly 350,000 hides per year of approximately 50 feet each, sufficient on the average for the covering or recovering of about 140,000 cars per year.

#### SHEEPSKIN LEATHER

Sheepskins are tanned in this country for many purposes. Reference has already been made to their use as linings and outer upper leather for boots, and to the lambskins required for roller leather. The number of native skins required for this purpose is no fewer than 2,500,000 per year. (In addition East Indian tanned sheep are used in appreciable quantities for this purpose.) Normally a few hundred thousand of New Zealand skins are used for roller leather. The remarkable falling off in the flocks of sheep (20 per cent) naturally produced a serious difficulty for this industry, but the slackness of the cotton



industry has so far prevented this from becoming acute. Skivers for the bookbinding trade require about 1,300,000 skins, according to an estimate for 1913, of which about 30 per cent are exported. For the manufacture of hat leather the requirements for 1913 also were estimated at nearly 2,200,000 skivers, 40 per cent of which were exported. This trade, however, does not at the present time attain its pre-War dimensions. Other uses for these skins, of which no statistical particulars are available, are for gloving leather, upholstery leather, leather fancy goods, gas-meter leather, motor clothing, etc. During the War the manufacture of jerkin leather (from sheepskins) for clothing reached very large dimensions, and required about 12,000,000 feet per year.

The last class of leather to be mentioned is that dressed from rough tanned goat- and sheepskins imported into this country. Statistics of the imports of rough-tanned goatskins are set out in detail in Table B 64 and of rough-tanned sheepskins in Table B 65. The bulk of the goatskins came from India, though before the War a substantial quantity came also from West Africa. The sheepskins come from India and Australia. There is a very considerable re-export trade in both articles, though it has not, since the War, attained to its 1913 volume, when considerable quantities were shipped to Germany and Austria for the manufacture of fancy goods.

Allowing for these re-exports and converting from the official unit (cwt.) to number of skins, the consumption of the rough-tanned skins in this country works out as follows :—

	1913	1921	1922
Rough-tanned goatskins . . . . .	1,500,000	1,000,000	2,600,000
"    "    sheepskins . . . . .	5,100,000	3,100,000	4,500,000
Total . . . . .	6,600,000	4,100,000	7,100,000

There is also an appreciable import of the corresponding dressed skins, particulars of which are given in Table B 74, amounting to about 500,000 skins in 1921 and 900,000 in 1922. The exports of the corresponding skins dressed in this country are of about the same order of magnitude as the imports (see Table B 109).

A fair amount of dressed calf and kip leather is also used for the manufacture of fancy goods, but statistics are available only for the foreign trade. Details of the imports of this leather are given in Table B 73 and of the exports in Table B 108. The imports are mainly from France and the United States; the exports are spread over many countries, France and Germany being the most important customers in 1921 and 1922.

#### BOOT AND SHOE MANUFACTURE

The manufacture and repair of boots and shoes is by far the most important form of consumption of leather in this country, accounting for more than

75 per cent of the total production by weight. The report of the Census of Production of 1907 gave the production of boots in that year (including a few rubber ones) at 98,000,000 pairs, of value (at the manufacturer's) £20,100,000, the value of the materials used being £14,000,000. It is of interest to note that the corresponding production in the United States was 285,000,000 pairs in 1909, increasing to 331,000,000 pairs in 1919. Of recent years there has been development in the use of rubber for soles, and for 1923 it has been stated that the amount of crêpe rubber so used has been 2,500 tons. Quite apart from this recent development there has been for a long time an appreciable production of boots from substitute materials, an enquiry made in 1918 showing no fewer than 20 different varieties aggregating to 120,000 pairs weekly. To deal adequately with the boot manufacturing industry would require a volume in itself, but a few facts regarding it can briefly be noticed. The chief localities of production are Northampton town, Northampton county, Leicester, Norwich, Bristol, Stafford, Chesham, Leeds, and London. Until lately the manufacture in each district had been very highly specialised, Northampton concentrating on men's boots, Leicester on women's, etc. The unequal intensity of the depression of 1921 and 1922 as between the different classes of manufacture, however, has caused many manufacturers to spread their production over an increased number of classes of boots. Perhaps the most noteworthy feature of the boot manufacturing industry is the fact that the relationship between the employers and employed has been developed to a greater extent probably than in any other industry. The Unions are under a single control and the wages and other agreements have a clause in them under which either side is liable to a monetary penalty for infringement of the agreement by any section of their members, and this clause has occasionally become operative.

The importation of boots into this country is of comparatively small dimensions. Full details are shown in Tables B 76-78. Since 1920 the official figures have separated men's from women's and children's in the official returns. Before the War the imports numbered about 2,500,000 pairs a year, averaging nearly 6s. 4d. per pair c.i.f. The United States was the chief supplier, closely followed by Switzerland, while substantial quantities also came from France, Germany, and Austria. In 1921 and 1922 the net imports were as follows:—

	1921 (pairs).	1922 (pairs).
Men's . . . . .	90,000	200,000
Women's and children's . . . . .	680,000	1,160,000
Total . . . . .	770,000	1,360,000

The import value of the men's boots in 1922 averaged over 13s. per pair, and of the women's and children's about 14s. per pair. The men's boots in 1922 came chiefly from the United States and Switzerland, but the last-named country was ahead of all others in the supply of the ladies' and children's, 40 per cent

of the high average price of nearly 17s. per pair coming from that country. The imports of boots and shoes increased considerably in 1923, and totalled 5,110,000 pairs. At certain periods of the year large quantities at low prices were imported from Germany.

Before the War the exports of leather boots and shoes reached very important dimensions, totalling nearly 17,500,000 pairs valued (f.o.b.) at £4,200,000. This probably represented from 15 per cent to 20 per cent of the production. This trade was spread over the whole world, and Table B 111 gives details of the 1913 exports. Over 70 per cent went to Empire countries, South Africa being the biggest customer, with Australia second, followed by New Zealand and Canada in order. The foreign countries taking the largest quantities of British boots were Argentine, France, Belgium, and Holland. As in the case of the imports, the exports for 1921 and 1922 can be separately described under the headings (a) men's boots and shoes, and (b) women's and children's boots and shoes. Details of these are shown in Tables B 112 and 113, and these tables can be shortly summarised as follows:—

	1921 (pairs).	1922 (pairs).
Men's . . . . .	1,900,000	2,200,000
Women's and children's . . . . .	1,800,000	3,700,000
Total . . . . .	3,700,000	5,900,000

The export value of the men's boots in 1922 averaged nearly 13s. per pair, and of the women's and children's a little over 7s. 6d. per pair. The men's boots exported averaged about the same price as those imported, but the women's and children's shoes imported averaged nearly double the price of those exported. The figures of total exports, 3,700,000 pairs in 1921 and 5,900,000 pairs in 1922, show a striking falling off in comparison with the pre-War figure of 17,500,000 pairs. Inspection of the tables shows that this decrease was spread over most of the countries, Empire and foreign alike. In the case of Argentine, the 1913 figure of 700,000 pairs fell to about 7000 in 1921 and 22,000 in 1922, the reason for the fall in this case being the heavy import duty under which a local industry had been developed. In 1923, however, British productions made more headway in that market, and it was announced towards the end of the year that the import duty would be doubled, in order to afford a further measure of protection to the native manufacturers. The exports to Holland have been fairly well maintained, but heavy decreases are to be noted regarding the other European countries; Belgium falling from 650,000 pairs to 180,000 pairs, and France from 680,000 pairs to 240,000 pairs. The reason in these cases is to be sought in the depreciated currencies of most of the European nations.

The comparative pre-War and post-War exports to various Empire countries are sufficiently important to warrant special attention, and can be summarised in approximate figures as follows:—

	1913	1921			1922		
		Men.	Women & Children. Pairs (000)	Total. Pairs (000)	Men.	Women & Children. Pairs (000)	Total. Pairs (000)
South Africa.	4,644	300	564	864	480	1,092	1,572
Australia . .	2,520	—	18	18	—	300	300
New Zealand .	1,300	36	168	204	216	768	984
Canada . . .	888	60	17	77	108	60	168
India . . . .	1,908	48	24	72	54	48	102
Whole Empire .	12,540	840	1,020	1,860	1,440	2,512	3,952

The only Empire country which in 1922 in any way approached its pre-War purchases of boots from this country was New Zealand. The main reason for the fall has been the import tariffs which have been set up and developed in all the Dominions, and under the protection of which local industries have been developed. In the case of South Africa an absolute embargo was placed for a period on certain classes of imported boots, and this hit the British boot trade very hard.

It is of some interest to note that, up to 1922 at any rate, the United States export trade in boots and shoes had not been affected to the same proportional extent as the British. The United States export trade is comparatively small, amounting in 1913 to 10,300,000 pairs (about 3 per cent of the production). In the fiscal year 1921 it was 12,580,000 pairs, being an increase of 22 per cent on the 1913 figures, as compared with a decrease of nearly 80 per cent in the case of the British exports.

In 1923, however, British exports have made more headway, the total exports for the whole year being returned as 9,500,000 pairs. The official returns have, however, since April, 1923, included shipments to the Free State of Ireland in the British exports, and if allowance is made for these the figure for 1923, comparable to the 17,500,000 pairs for 1913, is reduced to 6,900,000 pairs. Although the statistics show improved position, in view of the declared intention of many of the countries which have in the past been our best customers to increase their import duties, if necessary, in order to afford adequate protection for the development of their own manufacturing industry, the position can hardly be considered as satisfactory and may easily move in an adverse direction again.

### LEATHER GLOVES

The Report of the Census of Production taken in 1907 returned the production of leather gloves at 7,150,000 pairs, of value £848,000 (the corresponding figure for the United States was over 40,000,000 pairs). Although no later figures are available it is certain that the industry has made considerable progress since that date, though in 1923 it has suffered severe competition from imported gloves, the chief countries manufacturing these being placed in an extremely favourable position for exporting to this country owing to the depreciation

of their currencies. Full details of imports are given in Table B 79 and of exports in Table B 114. In 1913 the imports totalled 17,600,000 pairs (of which 2,500,000 pairs were re-exported) fairly evenly distributed from France, Austria-Hungary, Germany, and Belgium in the order named. In 1921, however, only about 3,750,000 pairs arrived, of which 360,000 were re-exported, while in 1922 the imports totalled 5,380,000 pairs and the re-exports 650,000 pairs. Imports from Austria fell away almost entirely up to 1922, but have reappeared since, while Germany and Belgium fell to about 10 per cent of the pre-War value. France has, however, maintained nearly 50 per cent of her 1913 trade with this country. The 1923 figures show a net importation of 6,880,000 pairs, or an increase of about 25 per cent on 1922, but were still only 40 per cent of the 1913 net imports.

The exports of leather gloves have also fallen very considerably from their pre-War magnitude. In 1913 exports exceeded 2,500,000 pairs, but both in 1921 and 1922 the figure was rather below 400,000 pairs. Table B 114 shows that the main reason for this diminution is the large decrease in exports to Canada and the United States, these two countries between them taking nearly 1,700,000 pairs in 1913, but only about 120,000 pairs in 1922. In 1923 the total exports were about the same as in the two previous years, but no detailed information is available.

#### SADDLERY AND HARNESS

Table B 11 shows that, according to the Report of the Census of Production taken in 1907, the total production of saddlery and harness in that year was valued at £2,230,000, and Table B 10 shows that at the time of that census the number of people drawing wages and salaries in respect of the industry was between 15,000 and 16,000. Beyond these there are no statistics available regarding production in this country. The increase in motor transport at the expense of horse vehicles would certainly suggest that the production since 1907 has declined, and the figures for the United States, where the development of motor transport has been greater than in this country, are of interest on this point. These figures show that the total number of persons connected with the industry there, which was 19,000 in 1909, had fallen to 18,400 in 1914 and 14,900 in 1919. The corresponding values of the output in the three years mentioned were 54,200,000 dollars, 53,600,000 dollars, and 83,700,000 dollars respectively, but there was, of course, a substantial increase in price over the period. The imports of saddlery and harness into this country are extremely small (see Table B 81), amounting to about £2000 per year only. The exports (see Table B 118), however, attain substantial amounts, being of value £445,000 in 1913, £208,000 in 1921, and £184,000 in 1922. Since 1920, import statistics have been returned also by weight, and there would appear at first sight from the table to have been a substantial increase in quantity exported, the figure rising from 6,800 cwt. in 1921 to 11,400 cwt. in 1922. This increase in quantity, however, was entirely accounted for by the increase from 113 cwt. to 4,569 cwt. in the case of Canada; but as the value of this was less than £4 per cwt., as

against £25 per cwt. for the remaining exports, it does not appear that there was much real increase. More than two-thirds of the total exports go to Empire countries, South Africa and Australia being the chief customers. Of foreign countries, in 1922 the United States took more than all the rest put together. In 1913 Argentine and Brazil had been appreciable buyers, but the exports to these countries in 1922 were extremely small.

#### LEATHER BAGS, TRUNKS, SPORTS, AND FANCY GOODS

No branch of the leather industry in Great Britain is so deficient in statistical information as that concerned with the manufacture of leather bags, trunks, and sports and fancy goods. As a consequence the importance of this branch of the industry is not sufficiently recognised. Until 1920, no details of imports and exports at all were available, but since that date the values (but not quantities) have been included in the official returns. The Report of the Census of Production of 1907 returned the output of this branch of the trade (employing 6,800 persons) at £1,270,000. This was probably an understatement at the time, and it is certainly much below the present rate of production. The United States figures of production show values of 59,400,000 dollars in 1909, 49,200,000 dollars in 1914, and 131,400,000 dollars in 1919 respectively, and the number of persons employed in the three years as 24,500, 22,500, and 28,900 respectively. These figures point to a decline in the few years before the War, followed by a substantial improvement afterwards, and the course of events in this country has probably been similar. The Customs figures since 1920 enable separate reference to be made in the foreign trade to (a) trunks, bags, and other solid leather goods; (b) fancy leather goods; (c) fancy artificial leather goods; and (d) leather sports goods. Even with these specified classes there is still a substantial amount (£200,000) of exports unclassified.

The figures of imports, shown in detail in Tables B·82, 83, 84, and 85, may be summarised as follows:—

	1913 £(000)	1922 £(000)
Leather trunks and bags . . . . .		23
Fancy leather goods . . . . .		153
Leather sports goods . . . . .		2
Leather manufactures other than those specified, or boots, belting, gloves, and saddlery and harness .. . . .	914	77
Artificial leather goods . . . . .		192
<b>Total . . . . .</b>	<b>914</b>	<b>447</b>

In 1913 nearly 90 per cent of the imports came from Germany, amounting to £882,000. The corresponding figure in 1922 was £320,000. Nearly all of the small quantity of leather trunks and bags coming into the country came from Germany, which country also supplies two-thirds of the fancy leather goods (£103,000), France coming next with £20,000. No less than 97 per cent of the artificial leather goods (£190,000) came from Germany. Of the unspecified leather manufactures, over 50 per cent in 1922 came from the United States.

## LEATHER, HIDES, AND SKINS

The corresponding figures for exports are shown in Tables B 119, 120, 121, 122, 123, and the summary of these tables is as follows :—

	1913 £(000)	1922 £(000)
Leather trunks and bags . . . . .	683	136
Fancy leather goods . . . . .		202
Leather sports goods . . . . .		106
Artificial leather goods . . . . .		7
Leather manufactures other than those specified, or boots, belting, gloves, and saddlery and harness . . . . .		210
Total . . . . .	683	661

So far as values are concerned exports of these leather manufactures have practically been maintained at the pre-War level, and the inference to be drawn jointly from the import and export statistics is that the industry has developed in recent years. The export of trunks and bags is spread over the whole world, only one country (United States with £49,000) taking more than £10,000 worth of the total of £136,000 exported; nearly 60 per cent went to foreign countries. The leather fancy goods exported are also distributed over many countries, about half going to Empire countries. The United States was the chief customer in 1922 with £46,000, followed by Australia (£31,000), Canada (£29,000), France (£19,000), and New Zealand (£17,000).

The leather sports goods go principally to foreign countries (80 per cent), the United States taking £36,000 (a large increase on the previous year) and France £19,000 out of the total of £106,000. Table B 123 shows that the exports of the unspecified leather manufactures are also distributed over many countries, France with £28,000 out of a total of £210,000 being first in importance.

This section can conveniently be closed by summarising the figures of imports and exports of all leather manufactures for 1913 and 1922 in order to obtain in one perspective the change in the general position regarding these manufactures.

	Imports.		Exports.	
	1913 £(000)	1922 £(000)	1913 £(000)	1922 £(000)
Boots and shoes . . . . .	800	929	4,194	2,826
Gloves . . . . .	1,534	1,046	370	135
Belting . . . . .	63	70	683	520
Saddlery and harness . . . . .	914	429	445	184
Other leather goods . . . . .			683	661
Total . . . . .	3,311	2,474	6,375	4,326

Taking regard to the increase in prices between 1913 and 1922, both imports and exports substantially diminished during the period covered, but it is clear that the exports diminished to a greater extent than imports. In 1913 there was a net excess of exports of over £3,000,000, but the corresponding figure for 1922 was less than £2,000,000.

## IRELAND

It will be appropriate to refer to the Irish industry in this Section.

The rôle of Ireland, in the leather industry of the Empire is mainly as a supplier of raw materials. Particulars of the pre-War and post-War cattle and sheep supplies are given in detail in Table B 13. Between 1913 and 1920 cattle increased in number from 4,930,000 to 5,020,000 (less than 2 per cent), while the number of sheep fell from 3,620,000 to 3,590,000.

A large proportion of Ireland's live stock is exported (mainly to Great Britain). In recent years this traffic has been very irregular, but the 1913 and 1919 figures are shown in Table B 125. It was estimated during the War that the annual slaughter of sheep and lambs was 1,000,000 of the former and 500,000 of the latter, the selection of the sheepskins being 50 per cent extras, 10 per cent firsts, 10 per cent seconds, and 30 per cent thirds; and of the lambskins, 50 per cent supers, 10 per cent firsts, and 40 per cent seconds.

The imports and exports of articles concerned with the leather industry into and from Ireland in 1913 and 1919 are shown in Tables B 125 and 126.

The exports of hides and skins which were £735,000 in 1913 reached £1,360,000 in 1919, and were £480,000 in 1921. The exports of leather similarly rose from £55,000 to £221,000 and then fell to £38,000 in 1921. Imports of leather rose from £565,000 to £1,067,000 and then fell to £654,000 in 1921.

Mr. McCartney Filgate, who was Irish Controller of Hides and Leather during the War, records that there are six tanneries, whose output is almost entirely sole and harness leather, practically all the upper leather required being imported. Before the days of factories whole villages in Ireland were engaged on the manufacture of hand-sewn boots, but these have largely disappeared, though there are six substantial factories in the North now in existence. Saddlery for agricultural purposes is manufactured in a small way in many places, and there are two belting factories.



## LEATHER, HIDES, AND SKINS

TABLE B 1

IMPORTS OF HIDES AND SKINS INTO THE UNITED KINGDOM ACCORDING TO SOURCE OF ORIGIN,  
EMPIRE COUNTRY OR FOREIGN COUNTRY

## QUANTITIES

Article.	1913				1922			
	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.
Calfskins, dry, cwt. (oo) .	2,9	14,4	17,3	1	2,3	9,6	11,9	62
„ wet, cwt. (oo) .	17,4	15,5	32,9	18	0,4	25,6	26,0	91
Hides, dry, cwt. (oo) .	364,4	240,9	605,4	60	234,3	274,9	509,1	67
„ wet, cwt. (oo) .	223,9	574,4	798,4	73	131,7	431,6	563,3	88
Goatskins, No. (ooo) .	10,049	2,046	12,095	30	8,209	516	8,725	31
Sheepskins, woolled, No. (ooo)	—	—	—	—	11,503	3,349	14,851	58
„ „ cwt. (ooo)	645	89	734	57	630	127	757	61
„ pickled, No. (ooo)	6,373	1,161	7,534	11	3,554	1,024	4,578	11
„ „ cwt. (oo)	—	—	—	—	100,0	35,4	135,5	32

TABLE B 2

IMPORTS OF HIDES AND SKINS INTO THE UNITED KINGDOM ACCORDING TO SOURCE OF ORIGIN,  
EMPIRE COUNTRY OR FOREIGN COUNTRY

## VALUE £(ooo)

Article.	1913				1922			
	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.
Calfskins, dry . . .	14	120	134	2	9	53	62	50
„ wet . . .	75	71	145	21	2	149	151	90
Hides, dry . . .	1,549	1,005	2,554	56	873	1,018	1,891	71
„ wet . . .	804	2,211	3,014	76	473	1,618	2,091	87
Goatskins . . .	1,247	241	1,489	31	1,124	72	1,196	33
Sheepskins, woolled . . .	2,100	315	2,415	56	2,559	429	2,988	38
„ pickled . . .	568	131	699	20	362	102	464	19

TABLE B 3

IMPORTS OF TANNING MATERIALS INTO THE UNITED KINGDOM ACCORDING TO SOURCE OF ORIGIN,  
EMPIRE COUNTRY OR FOREIGN COUNTRY

## QUANTITIES

Article.	1913				1922			
	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.
Tanning bark, cwt. (oo)	816,9	75,2	892,1	24	560,4	63,1	623,3	82
Extracts for tanning, cwt. (oo)	Not available by quantity				164,1	769,8	933,9	87
Gambier, cwt. (oo)	81,4	20,4	101,7	92	70,5	15,0	85,5	92
Myrobalans, cwt. (oo)	564,5	0,8	565,2	96	503,0	2,6	505,6	97
Sumach, cwt. (oo)	0,4	163,7	164,1	89	—	104,4	104,5	99
Galonia „ (oo)	—	346,1	346,1	99	1,4	108,7	110,1	96
Other tanning materials, cwt. (oo)	8,1	24,7	32,9	77	8,9	30,2	39,0	88

TABLE B 4

IMPORTS OF TANNING MATERIALS INTO THE UNITED KINGDOM ACCORDING TO SOURCE OF ORIGIN,  
EMPIRE COUNTRY OR FOREIGN COUNTRY

## VALUE £(000)

Article.	1913				1922			
	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.
Tanning bark	327	21	348	21	276	21	297	81
Extracts for tanning	42	880	923	97	183	789	972	83
Gambier	115	27	142	89	117	24	141	91
Myrobalans	177	—	177	97	183	1	184	98
Sumach	—	83	83	89	—	75	71	99
Galonia	—	164	164	98	1	64	65	97
Other tanning materials	4	13	17	76	5	21	27	89
Total tanning materials	665	1,188	1,854	81	765	991	1,757	86

## LEATHER, HIDES, AND SKINS

TABLE B 5

IMPORTS OF LEATHER AND MANUFACTURED SKINS INTO THE UNITED KINGDOM ACCORDING TO SOURCE OF ORIGIN, EMPIRE COUNTRY OR FOREIGN COUNTRY

## QUANTITIES

Article.	1913				1922			
	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.
Rough-tanned calfskins, cwt. (oo)	11,1	2,3	13,4	99	5,7	0,3	6,0	95
Rough-tanned hides (including sole leather, cwt. (oo)	302,7	458,2	760,9	98	181,0	153,1	34,2	93
Rough-tanned goatskins, cwt. (oo)	75,6	1,7	77,3	16	33,7	1,2	34,9	56
„ „ sheepskins, cwt. (oo)	72,3	16,4	88,6	44	63,5	5,0	68,5	50
Other rough-tanned skins, cwt. (oo)	0,7	5,9	6,7	76	—	0,7	0,7	87
Box calf, cwt. (oo)	—	46,8	46,8	99	1,4	33,8	35,2	98
Glacé kid, cwt. (oo)	—	47,9	48,0	91	—	30,4	30,5	93
Japanned leather, cwt. (oo)	0,2	19,4	19,7	93	1,4	17,6	19,0	93
Morocco, cwt. (oo)	—	0,3	0,3	100	}	1,1	66,5	67,7
Other dressed leather, cwt. (oo)	11,8	102,5	114,4	91				

TABLE B 6

IMPORTS OF LEATHER AND MANUFACTURED SKINS INTO THE UNITED KINGDOM ACCORDING TO SOURCE OF ORIGIN, EMPIRE COUNTRY OR FOREIGN COUNTRY

## VALUE £(000)

Article.	1913				1922			
	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.
Rough-tanned calfskins.	87	18	105	99	55	3	58	97
„ „ hides (including sole leather)	1,992	1,957	3,949	98	1,283	921	2,204	93
Rough-tanned goatskins	943	16	959	55	678	11	689	44
„ „ sheepskins	701	118	819	36	854	65	919	51
Other rough-tanned skins	4	29	33	67	1	10	10	82
Box calf	1	1,196	1,197	98	63	1,495	1,558	96
Glacé kid	2	1,576	1,578	88	3	2,026	2,028	91
Japanned leather	5	609	614	90	99	1,012	1,110	91
Morocco	—	12	12	90	}	35	2,115	2,149
Other dressed leather	63	1,243	1,306	83				

TABLE B 7

IMPORTS OF LEATHER MANUFACTURES INTO THE UNITED KINGDOM ACCORDING TO SOURCE OF ORIGIN, EMPIRE COUNTRY OR FOREIGN COUNTRY

QUANTITIES

Article.	1913				1922			
	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.
Leather gloves, doz. pairs (ooo)	—	1,474	1,474	86	—	448	448	88
„ boots and shoes, doz. pairs (ooo)	1	226	226	93	3	124	127	89
Leather belting, cwt. (oo)	—	5,2	5,2	94	—	3,0	3,0	87

TABLE B 8

IMPORTS OF LEATHER MANUFACTURES INTO THE UNITED KINGDOM ACCORDING TO SOURCE OF ORIGIN, EMPIRE COUNTRY OR FOREIGN COUNTRY

VALUE £(ooo)

Article.	1913				1922			
	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.	From Empire Countries.	From Foreign Countries.	Total.	Per cent of Total retained.
Leather gloves	—	1,800	1,860	86	2	1,205	1,207	87
„ boots and shoes	1	838	839	95	15	1,020	1,035	90
„ belting	—	67	67	95	—	87	87	80
Other leather manufactures	—	991	991	92	3	264	267	89

TABLE B 9

UNITED KINGDOM. CENSUS OF PRODUCTION, 1907		
OUTPUT BY TANNERS, CURRIERS, LEATHER DRESSERS, AND LEATHER BELTING MANUFACTURERS		
	Quantity.	Value £
Leather, undressed (including tanned hides and skins) .	$\left\{ \begin{array}{l} 1,346,000 \text{ cwt.} \\ 5,238,000 \text{ sq. ft.} \\ 585,000 \text{ doz.} \end{array} \right.$	$\left\{ \begin{array}{l} 8,102,000 \\ 136,000 \\ 450,000 \end{array} \right.$
Total leather, undressed . . . . .		8,688,000
Leather, dressed (including hides tawed, curried, or otherwise dressed—except varnished—and curried or tawed skins) . . . . .	$\left\{ \begin{array}{l} 386,000 \text{ cwt.} \\ 44,238,000 \text{ sq. ft.} \\ 1,223,000 \text{ doz.} \end{array} \right.$	$\left\{ \begin{array}{l} 3,001,000 \\ 1,289,000 \\ 1,733,000 \end{array} \right.$
Total leather, dressed . . . . .		6,023,000
Leather, varnished, japanned, or enamelled . . . . .	$\left\{ \begin{array}{l} 13,000 \text{ cwt.} \\ 2,028,000 \text{ sq. ft.} \\ 16,000 \text{ doz.} \end{array} \right.$	$\left\{ \begin{array}{l} 175,000 \\ 100,000 \\ 24,000 \end{array} \right.$
Total leather, varnished, etc. . . . .		299,000
Machinery belting (leather) . . . . .	109,000 cwt.	1,194,000
„ accessories of leather . . . . .		114,000
Hat leather . . . . .		89,000
Leather laces . . . . .		45,000
Saddlery, harness and other leather goods . . . . .		73,000
Wool . . . . .	13,802,000 lb.	681,000
Hair . . . . .	27,932,000 „	73,000
Hides and skins, pickled, etc. . . . .		230,000
Machinery accessories of hide . . . . .		91,000
Parchment and vellum . . . . .		46,000
Waste products . . . . .		318,000
Other „ . . . . .		184,000
Work done for the trade . . . . .		204,000
Total . . . . .		13,342,000

NOTE.—There was an appreciable amount of duplication in the returns relating to undressed and to dressed leather, as leather sold by tanners in the undressed state for dressing was returned by both seller and buyer in one form or the other. The total quantity of leather tanned (whether subsequently dressed or not) in the United Kingdom was computed at :

1,535,000 cwt.	} £11,000,000
33,268,000 sq. ft.	
1,176,000 doz. of skins	

TABLE B 10  
UNITED KINGDOM. CENSUS OF PRODUCTION, 1907  
PERSONS EMPLOYED IN LEATHER AND ALLIED INDUSTRIES  
(See Note to Table B 11)

Trade.	Average No. of Persons employed in Factories and Workshops.								Average No. of Outworkers.	
	Wage Earners.				Salaried Persons.				Males.	Females.
	Males.		Females.		Males.		Females.			
	Under 18 yrs. of age.	Over 18 yrs. of age.	Under 18 yrs. of age.	Over 18 yrs. of age.	Under 18 yrs. of age.	Over 18 yrs. of age.	Under 18 yrs. of age.	Over 18 yrs. of age.		
Fellmongery . . . . .	135	1,444	2	37	7	131	—	8	—	—
Leather trade (tanning and dressing) . . . . .	2,118	23,119	452	979	156	1,939	19	128	—	—
Saddlery and harness . . . . .	1,576	8,183	845	2,397	78	2,420	48	196	99	175
Travelling bag and fancy leather goods . . . . .	593	2,512	1,032	1,840	125	537	51	115	—	—
	4,422	35,258	2,331	5,253	366	5,027	118	447	99	175

TABLE B 11  
UNITED KINGDOM. CENSUS OF PRODUCTION, 1907  
VALUE OF MATERIALS USED, OUTPUT, ETC., IN LEATHER AND ALLIED INDUSTRIES

Trade.	Gross Output, Selling Value or Value of Work done.	Materials used. Cost.	Work given out. Amount paid to other firms.	Net Output. Excess of column 1 over columns 2 and 3.	Persons employed except outworkers.	Net output per person employed excluding outworkers	Horse power of engines at factories.
	£	£	£	£		£	£
Fellmongery . . . . .	2,201,000	2,054,000	—	147,000	1,674	83	699
Leather trade (tanning and dressing)	18,289,000	14,843,000	61,000	3,385,000	28,910	117	22,609
Saddlery and harness trade . . . . .	2,233,000	1,136,000	20,000	1,077,000	15,743	68	1,814
Travelling bag and fancy leather goods	1,271,000	747,000	—	524,000	6,805	77	362
	23,994,000	18,780,000	81,000	5,133,000	53,132	345	25,484

NOTE.—The term "Leather Trade" used in the census is of wider significance than is usually understood, and embraces the manufacture of machinery belting; the figures of output also include the value of wool and pickled pelts handled by tanners who are also fellmongers. (See Table B 10.)

## LEATHER, HIDES, AND SKINS

TABLE B 12  
GREAT BRITAIN  
NUMBERS OF CATTLE, SHEEP AND HORSES, PRE-WAR AND 1922  
(All figures in thousands.)

	England.		Wales.		Scotland.		Great Britain.	
	Pre-War	June, 1922	Pre-War	June, 1922	Pre-War	June, 1922	Pre-War	June, 1922
Cows and heifers . . . .	2,062	2,212	286	310	436	443	2,784	2,974
Bulls . . . . .	—	70	—	12	—	18	—	101
Other cattle, 2 years and above .	1,017	765	95	76	232	228	1,345	1,040
„ „ 1 year and under 2	1,053	987	186	180	279	232	1,519	1,417
„ „ under 1 year .	955	937	187	174	236	221	1,379	1,338
Total cattle . . . .	5,087	4,971	754	752	1,183	1,142	7,027	6,870
Ewes for breeding . . . .	5,563	4,020	1,495	1,408	2,971	2,815	10,120	8,301
Rams and ram-lambs . . . .	—	109	—	43	—	80	—	232
Other sheep, 1 year and above	2,882	1,571	763	567	1,271	1,030	4,916	3,109
„ „ under 1 year .	5,970	4,473	1,291	1,247	2,762	2,734	10,022	8,480
Total sheep . . . .	14,415	10,173	3,549	3,265	7,004	6,659	25,058	20,122
Total horses . . . .	1,245	1,181	161	160	205	217	1,441	1,308

TABLE B 13

## IRELAND

## DETAILS OF SHEEP

Year.	Sheep kept for breeding purposes.		Other Sheep.		Total Number of Sheep.
	Rams.	Ewes.	1 year old and up.	Under 1 year.	
1920	47,102	1,424,276	635,118	1,479,102	3,585,598

## DETAILS OF CATTLE, 1920

Year.	Bulls.	Milch Cows.	Heifers in Calf.	2 years old and up.	Other Cattle.		Total Number of Cattle.
					1 year old and under 2 years.	Under 1 year.	
1920	41,994	1,470,668	106,797	1,098,236	1,109,075	1,196,090	5,022,860

## NUMBERS OF LIVE STOCK

Year.	Horses.	Mules and Jennets.	Asses.	Cattle.	Sheep.	Pigs.	Goats.
1913	614,482	30,338	243,339	4,932,625	3,620,724	1,060,360	246,348
1920	624,266	27,111	226,553	5,022,860	3,585,598	982,418	244,914

# GREAT BRITAIN AND IRELAND

105

## TABLE B 14

SUMMARY OF STATISTICS COLLECTED WEEKLY IN 1917 AND 1918 REGARDING SUPPLIES  
OF CATTLE HIDES AND SKINS

### NUMBERS IN VARIOUS CLASSES

#### OX AND HEIFER-HIDES

	90 lb. and up.	80-89 lb.	70-79 lb.	60-69 lb.	50-59 lb.	40 lb. and under.	
Number, 1917 .	48,600	169,400	427,900	625,300	505,300	186,100	1,416,900
Number, 1918 .	25,800	120,500	311,200	471,400	365,000	123,000	

#### COW-HIDES

	Over 60 lb.	50-59 lb.	Under 50 lb.	Total.	Bull Hides.	Casualty Hides.
Number, 1917 .	321,300	259,800	64,100	645,200	98,300	—
Number, 1918 .	212,900	215,500	73,000	501,400	80,400	98,900

#### CALFSKINS

	17 lb. and up.	9-16 lb.	Under 9 lb.	Total.	Kips.	Horse- Hides.
Number, 1917 .	17,600	138,900	393,900	550,500	59,000	62,500
Number, 1918 .	20,600	194,700	496,600	711,900	102,600	195,100

## TABLE B 15

SUMMARY OF STATISTICS COLLECTED WEEKLY IN 1917 AND 1918 REGARDING SUPPLIES OF  
CATTLE HIDES AND SKINS

### MONTHLY VARIATION IN NUMBERS

	1917					1918				
	Number of Hides and Skins.					Number of Hides and Skins.				
	No. of weeks	Ox and Heifer (000)	Cow (00)	Bull (00)	Calf (00)	No. of weeks	Ox and Heifer (000)	Cow (00)	Bull (00)	Calf (00)
January .	4	142	44.8	6.9	30.3	4	118	49.2	5.9	55.0
February .	4	135	49.2	8.7	28.2	4	104	42.7	7.2	45.5
March .	5	171	59.9	12.5	46.0	5	130	52.1	10.5	85.4
April .	4	144	45.3	10.3	49.2	4	99	36.9	9.4	60.7
May .	4	144	50.7	12.4	59.1	4	92	32.1	9.5	63.3
June .	5	154	61.4	14.3	39.8	5	69	29.9	9.0	83.9
July .	4	115	42.4	5.4	34.8	4	68	32.3	5.2	42.2
August .	4	146	47.9	5.0	46.1	5	109	43.1	6.1	47.0
September .	5	205	57.5	5.7	57.7	4	128	38.4	5.5	41.8
October .	4	185	48.3	4.2	66.1	4	155	41.1	4.7	59.3
November .	4	196	59.6	4.5	50.5	5	209	56.7	3.7	73.9
December .	5	227	78.1	8.4	42.7	4	136	46.9	3.7	53.9



## LEATHER, HIDES, AND SKINS

TABLE B 16

UNITED KINGDOM. SHEEPSKIN STATISTICS, 1917-18

Weekly Average for months.	Raw Skins pur- chased.	Total No. of Fell- mongered Pelts sold.	Sheep.					Lambs.		
			Fellmongered Pelts Sold.							
			Extras.	First or Primes.	Seconds or Light Primes.	Thirds or Belows.	Supers.	First or Primes.	Seconds or Belows.	
	doz.	doz.	doz.	doz.	doz.	doz.	doz.	doz.	doz.	doz.
1917										
July . .	17,335	16,031	1,758	4,100	1,221	719	3,639	3,620	972	
August .	20,726	17,650	876	3,945	1,497	832	4,634	4,714	1,173	
September .	21,683	20,364	2,612	4,930	1,795	852	4,315	4,908	1,149	
October .	21,398	20,333	3,425	6,801	2,204	716	3,025	3,393	864	
November .	22,117	21,546	4,784	7,833	2,117	550	2,646	2,924	693	
December .	18,485	18,472	3,637	7,304	2,175	569	2,042	2,134	608	
1918										
January .	17,740	17,151	3,901	7,048	1,930	555	1,674	1,606	438	
February .	9,073	15,632	3,150	6,935	1,984	610	1,275	1,293	474	
March .	9,738	9,781	1,960	4,399	1,201	520	588	692	421	
April .	9,779	9,437	1,932	4,312	1,139	459	512	673	408	
May .	8,381	8,639	1,809	3,813	973	594	469	577	404	
June .	10,138	8,316	1,428	2,246	868	1,193	1,117	858	606	

TABLE B 17

EXPORTS OF HIDES AND SKINS FROM THE UNITED KINGDOM, ACCORDING TO COUNTRY OF  
DESTINATION, EMPIRE COUNTRIES AND FOREIGN COUNTRIES

Article.	QUANTITIES 1913			1922		
	To Empire Countries.	To Foreign Countries.	Total.	To Empire Countries.	To Foreign Countries.	Total.
Hides from imported cattle slaughtered in U.K., cwt. (oo)	6,4	13,1	19,5	—	3,6	3,6
All other hides and calfskins, cwt. (oo)	12,9	185,5	198,4	7,1	134,0	141,1
Sheep- and lambskins, woolled, cwt. (oo)	—	3,7	3,7	—	8,4	8,4
Sheep- and lambskins, No. (ooo)	Not available	—	—	1	331	332
Other sheep- and lambskins, cwt. (oo)	Not available	—	—	—	90,5	90,5
Other sheep- and lambskins, No. (ooo)	89	8,405	8,494	—	4,384	4,384
	Values.					
Hides from imported cattle, slaughtered in U.K.	28	46	74	—	16	16
All other hides and calfskins	50	592	642	34	392	426
Sheep- and lambskins, woolled	—	14	14	—	31	31
Other sheep- and lambskins	4	497	501	—	267	267

TABLE B 18

## UNITED KINGDOM TRANSIT TRADE IN HIDES, 1913 AND 1921

VALUE £(000)

Foreign Country of Origin.	1913		1921	
	Imported.	Retained.	Imported.	Retained.
Russia . . . . .	580	93	30	10
Norway . . . . .	15	12	4	4
Denmark . . . . .	41	25	15	15
Germany . . . . .	164	152	1	1
German West Africa . . . . .	13	13	—	—
„ East Africa . . . . .	3	2	—	—
Holland . . . . .	121	117	86	86
Java . . . . .	7	7	24	23
Belgium . . . . .	51	48	16	15
France . . . . .	319	262	230	218
French West Africa . . . . .	68	57	—	—
„ Somaliland . . . . .	68	68	4	4
Madagascar . . . . .	19	16	11	—
Switzerland . . . . .	—	—	17	17
Portugal . . . . .	75	28	51	25
Portuguese East Africa . . . . .	4	4	3	3
Italy . . . . .	528	504	192	190
Italian East Africa . . . . .	3	3	—	—
Egypt . . . . .	27	16	†	†
Siam . . . . .	6	4	—	—
China . . . . .	95	48	51	22
Japan . . . . .	10	9	2	2
United States . . . . .	33	25	103	101
Costa Rica . . . . .	1	1	—	—
Colombia . . . . .	40	12	13	10
Venezuela . . . . .	1	1	3	—
Ecuador . . . . .	22	15	9	5
Chile . . . . .	14	10	46	29
Brazil . . . . .	69	39	226	142
Uruguay . . . . .	9	7	202	158
Argentine . . . . .	882	861	1,157	977
Total Countries stated . . . . .	3,288	2,459	2,496	2,057
Percentage retained from stated Foreign Countries . . . . .	—	76	—	82

† Egypt fell under the head of " Foreign Country " in 1913, but " Empire Country " in 1921.

TABLE B 18—*continued*.

VALUE £(000).

Empire Country of Origin	1913		1921	
	Imported.	Retained.	Imported.	Retained.
Channel Islands . . . . .	4	4	8	8
Malta . . . . .	6	6	1	1
Egypt . . . . .	†	†	3	2
Gambia . . . . .	27	—	6	—
Gold Coast . . . . .	20	10	—	—
Nigeria . . . . .	82	24	131	69
Cape of Good Hope . . . . .	468	82	149	—
Natal . . . . .	357	107	204	168
Zanzibar . . . . .	2	2	—	—
Kenya . . . . .	162	153	69	—
Uganda . . . . .	39	38	—	—
Aden . . . . .	49	36	28	20
India . . . . .	351	161	272	—
Straits Settlements . . . . .	135	100	32	16
Hong-Kong . . . . .	4	3	23	21
Australia . . . . .	682	469	232	182
New Zealand . . . . .	24	1	80	66
British West Indies . . . . .	18	10	18	16
„ Guiana . . . . .	3	3	3	3
Total Countries stated . . . . .	2,433	1,209	1,259	572
Percentage retained from stated Empire Countries . . . . .	—	50	—	45

† Egypt fell under the head of "Foreign Country" in 1913, but "Empire Country" in 1921.

# GREAT BRITAIN AND IRELAND

109

TABLE B 19

UNITED KINGDOM TRANSIT TRADE IN GOATSKINS, 1913 AND 1921

VALUE £(000)

Foreign Country of Origin.	1913		1921	
	Imported.	Retained.	Imported.	Retained.
France . . . . .	15	4	5	5
French West Africa . . . . .	—	—	2	2
Turkey . . . . .	9	6	—	—
Egypt . . . . .	6	3	†	†
Morocco . . . . .	36	4	1	1
China . . . . .	28	2	2	—
United States . . . . .	7	7	48	48
Total Countries stated . . . . .	101	26	58	56
Percentage retained from stated Foreign Countries . . . . .	—	26	—	97

Empire Country of Origin.	1913		1921	
	Imported.	Retained.	Imported.	Retained.
Egypt . . . . .	†	• †	3	1
Nigeria . . . . .	13	14	45	9
Cape of Good Hope . . . . .	411	166	135	95
Natal . . . . .	27	27	14	14
Zanzibar . . . . .	6	5	—	—
Kenya . . . . .	12	—	17	10
Aden . . . . .	82	20	52	9
India . . . . .	686	135	376	25
Total Countries stated . . . . .	1,237	367	642	163
Percentage retained from stated Empire Countries . . . . .	—	29	• —	25

† Egypt fell under the head of " Foreign Country " in 1913, but " Empire Country " in 1921.

TABLE B 20

UNITED KINGDOM TRANSIT TRADE IN SHEEP AND LAMBSKINS (WOOLLED AND PICKLED),  
1913 AND 1921

VALUE £(000)

Foreign Country of Origin.	1913		1921	
	Imported.	Retained.	Imported.	Retained.
Russia . . . . .	57	3	40	36
Spain . . . . .	52	—	28	28
Egypt . . . . .	28	19	†	†
Morocco . . . . .	7	—	—	—
Chile . . . . .	135	80	146	69
Argentine . . . . .	39	34	36	23
Total Countries stated . . . . .	318	136	250	156
Percentage retained from stated Foreign Countries . . . . .	—	43	—	62

Empire Country of Origin.	1913		1921	
	Imported.	Retained.	Imported.	Retained.
Egypt . . . . .	†	†	6	6
Cape of Good Hope . . . . .	807	323	581	170
Natal . . . . .	159	156	169	158
Aden . . . . .	92	3	105	76
Mesopotamia . . . . .	—	—	11	10
India . . . . .	23	—	34	—
Australia . . . . .	920	590	479	222
New Zealand . . . . .	642	177	367	180
Falkland Islands . . . . .	17	17	8	3
Total Countries stated . . . . .	2,660	1,266	1,760	825
Percentage retained from stated Empire Countries . . . . .	—	48	—	47

† Egypt fell under the head of " Foreign Country " in 1913, but " Empire Country " in 1921.

# GREAT BRITAIN AND IRELAND

III

TABLE B 21

UNITED KINGDOM

CONSUMPTION OF VEGETABLE TANNING MATERIALS IN GREAT BRITAIN AND IRELAND  
EMPIRE COUNTRIES

Material.	Country of Origin.	1913				1922			
		Tanning Con- tent.	Weight Tons.	Tanning Units.	Value.	Weight.	Tanning Units.	Value.	
Wattle bark .	South Africa	Per cent			£			£	
Myrobalans .	India . .	34	10,720	3,650	80,000	25,500	8,670	242,000	
Wattle extract .	South Africa	32	27,160	8,830	171,000	24,570	7,860	180,000	
Gambier .	Straits Settle- ments	60	—	nil	—	6,500	3,900	149,000	
Larch bark .	Gt. Britain .	36	4,680	1,680	130,000	3,950	1,420	139,000	
Oak bark .	Gt. Britain & Ireland .	10	800	80	60,000	800	80	70,000	
Myrobalan extract	India . .	11	12,000	1,320	}	10,000	1,100	}	
" "	"	60 (solid)							
" "	"	26 (liquid)	1,200	560	13,000	1,400	650	27,000	
Hemlock extract	Canada .	60	300	180	4,000	300	180	6,000	
Miscellaneous materials .			400	200	4,000	600	300	7,000	
Miscellaneous extracts .			2,000	1,000	25,000	—	—	—	
Total : Empire Countries .			59,260	17,500	487,000	73,620	24,160	820,000	
FOREIGN COUNTRIES									
Chestnut extract	United States	29	4,900	1,450	46,000	500	150	13,000	
" "	France .	27	35,800	9,580	430,000	18,600	5,020	335,000	
" "	Italy . .	27	7,000	1,900	88,000	6,900	1,860	137,000	
Quebracho .	Argentina .	63	8,100	5,100	142,000	10,700	6,740	259,000	
Sumach .	Italy . .	28	7,300	2,040	74,000	5,150	1,440	71,000	
Valonia .	Turkey and Greece .	31	17,100	5,310	161,000	5,300	1,640	63,000	
" extract	Turkey .	64	1,100	700	26,000	460	300	16,000	
Algarobilla	Chile . .	47	—	—	—	900	420	13,000	
Miscellaneous materials			650	200	6,000	1,300	400	16,000	
Miscellaneous extracts			1,000	300	14,000	1,100	330	26,000	
Total : Foreign Countries .			82,950	26,580	987,000	50,910	18,300	949,000	
Total . .			142,210	44,080	1,474,000	124,530	42,460	1,769,000	

## LEATHER, HIDES, AND SKINS

TABLE B 22

IMPORTS OF RAW HIDES AND SKINS, LEATHER, ETC., INTO GREAT BRITAIN  
BY PORTS

## QUANTITIES

Commodity.	All Ports.		Liverpool.		London.		Bristol.		Hull.		Glasgow.		South-ampton.	
	1913	1921	1913	1921	1913	1921	1913	1921	1913	1921	1913	1921	1913	1921
Hides, cwt. (ooo) . .	1,453	870	535	511	455	235	65	15	202	27	16	10	118	57
„ (per cent) . .	100	100	37	59	31	27	5	2	14	3	2	1	8	7
Goatskins, No. (ooo) .	12,095	4,456	3,187	1,581	6,015	2,206	†	†	474	29	†	†	2,113	549
„ (per cent) . .	100	100	26	35	50	51	†	†	4	1	†	†	18	12
Leather, cwt. (ooo) .	1,175	387	317	56	577	270	53	4	5	2	33	14	13	3
„ (per cent) . .	100	100	27	14	49	70	5	1	—	1	3	4	1	1

† Not known.

TABLE B 23

IMPORTS OF RAW HIDES AND SKINS, LEATHER, ETC., INTO GREAT BRITAIN BY PORTS

## VALUE £(ooo)

Commodity.	All Ports.		Liverpool.		London.		Bristol.		Hull.		Glasgow.		South-ampton.	
	1913	1921	1913	1921	1913	1921	1913	1921	1913	1921	1913	1921	1913	1921
Hides. . . . .	5,847	3,753	2,312	2,254	1,890	972	259	67	600	102	54	45	486	236
„ (per cent) . .	100	100	40	60	32	26	4	2	10	3	1	1	8	6
Sheep and lambskins .	3,114	2,089	172	120	2,206	1,376	†	†	58	72	†	†	632	493
„ „ (per cent)	100	100	6	6	71	66	†	†	2	3	†	†	20	23
Goatskins . . . . .	1,489	719	374	260	644	334	†	†	48	3	†	†	369	121
„ (per cent) . .	100	100	25	36	43	46	†	†	3	†	†	†	25	17
Leather . . . . .	10,572	8,346	2,198	1,395	5,563	5,315	238	30	60	76	216	134	492	197
„ (per cent) . .	100	100	21	17	53	64	2	—	1	1	2	2	4	2
Extracts for dyeing and tanning . . . . .	1,408	1,407	646	1,039	†	†	46	29	48	76	96	37	†	†
„ „ (per cent) .	100	100	46	74	†	†	3	2	3	—	7	3	†	†

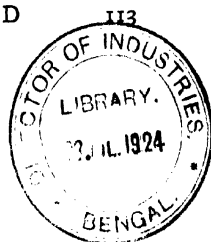
† Not known.

# GREAT BRITAIN AND IRELAND

TABLE B 24

UNITED KINGDOM

PRODUCTION OF SOLE LEATHER IN 1917



(a) *Vegetable Tanned Bends.*

Weight of bend.	Native.		Wet-salted.		Dry and dry-salted.		Total.	
	No. (000)	Tons.	No. (000)	Tons.	No. (000)	Tons.	No. (000)	Tons.
Under 8 lb. .	82	257	48	150	852	2,670	982	3,077
8-10 lb. .	153	614	128	513	801	3,215	1,082	4,342
10-12 lb. .	309	1,518	405	1,987	606	2,970	1,320	6,475
12-14 lb. .	346	2,006	710	4,125	279	1,615	1,335	7,746
14-16 lb. .	314	2,108	971	6,510	135	900	1,420	9,518
Over 16 lb. .	87	657	575	4,370	41	310	703	5,337
Total .	1,291	7,160	2,837	17,655	2,714	11,680	6,842	36,495

(b) *Chrome Tanned Bends.*

	Under 7 iron.		7 iron and over.		Total.	
	No.	Tons.	No.	Tons.	No.	Tons.
All classes	98,600	310	105,400	480	204,000	790

(c) *Struck Rolled and Pinned Shoulders.*

	Under 6 iron.		6 iron and over.		Total.	
	No.	Tons.	No.	Tons.	No.	Tons.
All classes	1,220,000	3,050	2,020,000	3,420	3,240,000	6,470

(d) *Struck Rolled and Pinned Bellies.*

	Under 5 iron.		5 iron and over.		Total.	
	No.	Tons.	No.	Tons.	No.	Tons.
All classes	1,720,000	3,820	5,050,000	14,030	6,770,000	17,850

*Summary.*

	Total.	Native and wet-salted bends over 12 lb.	Other vegetable tanned bends.	Chrome bends.	Shoulders.	Bellies.
Number .	—	3,003,000	3,836,000	204,000	3,240,000	6,770,000
Tons	66,605	19,876	16,619	790	11,470	17,850



## LEATHER, HIDES, AND SKINS

TABLE B 25  
UNITED STATES  
DETAILS OF LEATHER EXPORTED TO UNITED KINGDOM

	QUANTITIES		1920	1921
	Unit.	1913		
Leather for belting . . . . .	lb.	Not available	240	381
Carriage and upholstery leather . . . . .		Not available by quantity		
Glove leather . . . . .		Not available by quantity		
Patent " . . . . .	ft.	Not available	4,231,915	8,449,901
Sole " . . . . .	lb.	31,041,728	8,060,178	5,001,542
Calf and kip upper leather . . . . .	ft.	1,840,731	3,299,257	6,139,578
Goat and kid " " . . . . .	ft.	43,889,909	25,571,316	14,058,553
Cattle sides, grain and finished splits . . . . .	"	Not available	4,993,994	1,864,175
" " wax and rough splits . . . . .	lb.	"	2,356,559	858,478
All other upper leather . . . . .		Not available by quantity		
" " leather . . . . .		"	"	"
Children's boots and shoes . . . . .	pairs	27,594	11,107	2,633
Men's " " . . . . .	"	306,564	224,709	26,727
Women's " " . . . . .	"	254,219	496,697	127,962
Gloves . . . . .	doz. pairs	Not available	17,537	124
Slippers . . . . .	pairs	4,143	1,496	6,981
Harness and saddles . . . . .		Not available by quantity		
Leather belting . . . . .	lb.	Not available	255,023	50,334
All other leather manufactures . . . . .		Not available by quantity		

TABLE B 26  
UNITED STATES  
DETAILS OF LEATHER EXPORTED TO UNITED KINGDOM

	VALUE (DOLLARS)		1920	1921
	1913			
Leather for belting . . . . .	77,138		284	345
Carriage and upholstery leather . . . . .	6,142		8,629	3,297
Glove leather . . . . .	2,516		55,259	11,277
Patent " . . . . .	629,498		3,217,739	2,679,365
Sole leather . . . . .	7,185,405		3,954,984	1,397,990
Calf and kip upper leather . . . . .	471,688		2,542,046	2,239,342
Goat and kid " " . . . . .	7,063,804		15,867,868	3,919,260
Cattle sides, grain and finished splits . . . . .	—		1,570,088	490,938
" " wax and rough splits . . . . .	—		1,062,966	226,803
All other upper leather . . . . .	3,479,044		1,532,183	271,088
" " leather . . . . .	850,699		947,105	256,253
Children's boots and shoes . . . . .	22,920		28,386	3,316
Men's " " . . . . .	782,715		1,433,451	126,247
Women's " " . . . . .	527,970		3,037,635	530,047
Gloves . . . . .	—		325,620	2,169
Harness and saddles . . . . .	11,494		6,865	2,946
Slippers . . . . .	7,420		2,184	8,848
Leather belting . . . . .	—		522,579	93,269
All other leather manufactures . . . . .	279,101		1,337,991	284,747
Total . . . . .	21,397,554		37,453,862	12,547,547

# GREAT BRITAIN AND IRELAND

115

TABLE B 27

EXPORTS OF LEATHER FROM UNITED KINGDOM ACCORDING TO COUNTRY OF DESTINATION,  
EMPIRE COUNTRY OR FOREIGN COUNTRY

Article.	1913			1922		
	To Empire Countries.	To Foreign Countries.	Total.	To Empire Countries.	To Foreign Countries.	Total.
Sole leather, cwt. (oo) . . . . .				9,1	58,0	67,1
Undressed ox and cow leather, cwt. (oo) . . . . .				7	48,8	49,5
Undressed calf leather, cwt. (oo) . . . . .				—	8	8
„ kip leather, cwt. (oo) . . . . .	22,6	117,6	140,2	—	4,4	4,4
„ goat leather, cwt. (oo) . . . . .				—	0,3	0,3
„ sheep leather, cwt. (oo) . . . . .				1	11,5	11,6
„ other sorts, cwt. (oo) . . . . .				3,5	26,6	30,1
Patent and enamelled leather, cwt. (oo) . . . . .	1,1	2,9	4,0	8	2,3	3,1
Box calf, cwt. (oo) . . . . .				3,3	7,6	10,9
Glacé kid, cwt. (oo) . . . . .				9	1,3	2,2
Other upper leather, cwt. (oo) . . . . .				5,5	20,6	26,1
Dressed hide calf and kip (not for upper leather), cwt. (oo) . . . . .	24,1	87,4	111,5	1,2	2,6	3,9
Dressed sheep, goat, and kid (not for upper leather), cwt. (oo) . . . . .				1,1	5,3	6,4
Other dressed leather, cwt. (oo) . . . . .				2,5	11,6	14,1

TABLE B 28

EXPORTS OF LEATHER FROM UNITED KINGDOM ACCORDING TO COUNTRY OF DESTINATION,  
EMPIRE COUNTRY OR FOREIGN COUNTRY

Article.	1913			1922		
	To Empire Countries.	To Foreign Countries.	Total.	To Empire Countries.	To Foreign Countries.	Total.
Sole leather . . . . .				120	581	701
Undressed ox and cow leather . . . . .				11	463	474
Undressed calf leather . . . . .				1	8	9
„ kip „ . . . . .	189	1,054	1,243	—	33	33
„ goat „ . . . . .				—	9	9
„ sheep „ . . . . .				2	186	188
„ other sorts . . . . .				48	272	320
Patent and enamelled leather . . . . .	22	70	92	34	111	145
Box calf . . . . .				80	164	244
Glacé kid . . . . .				50	72	122
Other upper leather . . . . .				97	449	546
Dressed hide, calf, and kip (not for upper leather) . . . . .	358	1,774	2,132	28	72	100
Dressed sheep, goat, and kid (not for upper leather) . . . . .				97	335	432
Other dressed leather . . . . .				60	367	427
Total . . . . .	569	2,898	3,467	628	3,122	3,750

TABLE B 29

EXPORTS OF LEATHER MANUFACTURES FROM UNITED KINGDOM ACCORDING TO COUNTRY OF  
DESTINATION, EMPIRE COUNTRY OR FOREIGN COUNTRY

Article.	QUANTITIES					
	1913		Total.	1922		Total.
	To Empire Countries.	To Foreign Countries.		To Empire Countries.	To Foreign Countries.	
Boots, men's, doz. pairs (ooo)	1,045	408	1,453	120	67	187
„ women and children's, doz. pairs (ooo)				226	79	305
Leather apparel	Figures of quantities not available					
Gloves, doz. pairs (ooo)	93	136	229	17	15	32
Belting, cwt. (oo)	19,9	29,0	48,9	8,8	8,1	16,9
Saddlery and harness, cwt. (oo)	Not available			9,5	2,0	11,5

TABLE B 30

EXPORTS OF LEATHER MANUFACTURES FROM UNITED KINGDOM ACCORDING TO COUNTRY OF  
DESTINATION, EMPIRE COUNTRY OR FOREIGN COUNTRY

Article.	VALUE £(000)					
	1913			1922		
	To Empire Countries.	To Foreign Countries.	Total.	To Empire Countries.	To Foreign Countries.	Total.
Boots, men's . . . . .	2,634	1,560	4,194	873	557	1,430
„ women and children's . . . . .				1,047	348	1,395
Leather apparel . . . . .	Included in Unenumerated			14	51	65
Gloves . . . . .	141	229	370	61	74	135
Belting . . . . .	264	419	683	289	231	520
Saddlery and harness . . . . .	267	179	446	112	72	184
Trunks, bags, and solid leather goods	Included in Unenumerated			59	77	136
Fancy leather goods . . . . .	„	„	„	111	91	202
Leather sports . . . . .	„	„	„	22	84	106
Unenumerated leather goods . . . . .	349	334	683	96	114	210
Total . . . . .	3,655	2,721	6,376	2,684	1,699	4,383

TABLE B 31

## IMPORTS OF WET CALFSKINS

Total Imports: 32,942 cwt. (£145,451) in 1913, 25,982 cwt. (£151,035) in 1922.  
 From Empire Countries: 17,405 cwt. (£74,665) in 1913, 362 cwt. (£1,870) in 1922.  
 (*Australia*): 16,398 cwt. (£71,374) in 1913, 186 cwt. (£750) in 1922.  
 From Foreign Countries: 15,537 cwt. (£70,786) in 1913, 25,620 cwt. (£149,165) in 1922.  
 (*Russia*): 5,720 cwt. (£25,125) in 1913, not known in 1922.  
 (*Denmark*): 355 cwt. (£1,091) in 1913, 995 cwt. (£5,016) in 1922.  
 (*Netherlands*): 886 cwt. (£4,093) in 1913, 1,973 cwt. (£10,395) in 1922.  
 (*Belgium*): 1,253 cwt. (£7,431) in 1913, 279 cwt. (£1,366) in 1922.  
 (*France*): 5,661 cwt. (£26,717) in 1913, 13,643 cwt. (£86,097) in 1922.  
 (*Italy*): Not known in 1913, 3,186 cwt. (£20,722) in 1922.  
 (*United States of America*): 65 cwt. (£200) in 1913, 3,403 cwt. (£14,127) in 1922.

TABLE B 32

## IMPORTS OF WET HIDES

Total Imports: 798,381 cwt. (£3,014,381) in 1913, 563,283 cwt. (£2,090,157) in 1922.  
 From Empire Countries: 223,936 cwt. (£803,718) in 1913, 131,677 cwt. (£472,013) in 1922.  
 (*Cape of Good Hope*): 10,458 cwt. (£37,354) in 1913, 4,138 cwt. (£14,125) in 1922.  
 (*Natal*): 57,660 cwt. (£205,529) in 1913, 42,113 cwt. (£146,484) in 1922.  
 (*British India*): 28,622 cwt. (£84,054) in 1913, 194 cwt. (£948) in 1922.  
 (*Australia*): 113,331 cwt. (£435,464) in 1913, 56,079 cwt. (£213,224) in 1922.  
 (*New Zealand*): 1,458 cwt. (£5,033) in 1913, 13,220 cwt. (£42,091) in 1922.  
 (*British West India Islands*): 5,645 cwt. (£17,576) in 1913, 2,962 cwt. (£9,446) in 1922.  
 From Foreign Countries: 574,445 cwt. (£2,210,663) in 1913, 431,606 cwt. (£1,618,144) in 1922.  
 (*Russia*): 92,170 cwt. (£259,774) in 1913, not known in 1922.  
 (*Sweden*): 11,167 cwt. (£29,523) in 1913, 4 cwt. (£18) in 1922.  
 (*Norway*): 2,284 cwt. (£6,903) in 1913, 1,616 cwt. (£2,405) in 1922.  
 (*Denmark*): 13,680 cwt. (£32,678) in 1913, 325 cwt. (£1,455) in 1922.  
 (*Germany*): 27,610 cwt. (£94,588) in 1913, not known in 1922.  
 (*Netherlands*): 19,532 cwt. (£66,879) in 1913, 48,087 cwt. (£152,180) in 1922.  
 (*Belgium*): 10,007 cwt. (£33,691) in 1913, 8,295 cwt. (£37,996) in 1922.  
 (*France*): 36,754 cwt. (£122,879) in 1913, 21,675 cwt. (£107,291) in 1922.

## LEATHER, HIDES, AND SKINS

*Portugal*) : 20,759 cwt. (£73,083) in 1913, 108 cwt. (£420) in 1922.  
*Italy*) : 119,702 cwt. (£513,509) in 1913, 58,290 cwt. (£270,574) in 1922.  
*China*) : 8,908 cwt. (£35,869) in 1913, 416 cwt. (£2,070) in 1922.  
*United States*) : 8,800 cwt. (£20,966) in 1913, 51,058 cwt. (£126,833) in 1922.  
*Chile*) : 3,414 cwt. (£11,687) in 1913, 17,964 cwt. (£69,421) in 1922.  
*Brazil*) : 24 cwt. (£90) in 1913, 44,546 cwt. (£150,721) in 1922.  
*Uruguay*) : 1,317 cwt. (£5,930) in 1913, 33,749 cwt. (£111,328) in 1922.  
*Argentina*) : 186,780 cwt. (£868,851) in 1913, 108,575 cwt. (£443,844) in 1922.

TABLE B 33

## EXPORTS OF IMPORTED WET HIDES

Total Exports : 219,165 cwt. (£734,594) in 1913, 68,186 cwt. (£266,777) in 1922.  
 To Empire Countries : 15,593 cwt. (£66,394) in 1913, 4,061 cwt. (£23,155) in 1922.  
 To Foreign Countries : 203,572 cwt. (£668,200) in 1913, 64,125 cwt. (£243,622) in 1922.

TABLE B 34

## EXPORTS OF IMPORTED WET CALFSKINS

Total Exports : 26,996 cwt. (£114,076) in 1913, 2,276 cwt. (£15,005) in 1922.  
 To Empire Countries : 1,375 cwt. (£5,497) in 1913, 1,270 cwt. (£9,352) in 1922.  
 To Foreign Countries : 25,621 cwt. (£108,579) in 1913, 1,006 cwt. (£5,653) in 1922.  
 (*United States*) : 22,513 cwt. (£97,016) in 1913, 480 cwt. (£2,530) in 1922.

TABLE B 35

## IMPORTS OF DRY AND DRY-SALTED CALFSKINS

Total Imports : 17,313 cwt. (£134,257) in 1913, 11,945 cwt. (£62,154) in 1922.  
 From Empire Countries : 2,878 cwt. (£14,429) in 1913, 2,312 cwt. (£9,144) in 1922.  
 (*Cape of Good Hope*) : 637 cwt. (£3,732) in 1913, 193 cwt. (£965) in 1922.  
 (*Kenya Colony*) : 552 cwt. (£2,532) in 1913, 69 cwt. (£250) in 1922.  
 (*British India*) : 507 cwt. (£2,048) in 1913, 1,540 cwt. (£5,468) in 1922.  
 (*New South Wales*) : 419 cwt. (£2,151) in 1913, not known in 1922.  
 From Foreign Countries : 14,435 cwt. (£119,828) in 1913, 9,633 cwt. (£53,010) in 1922.  
 (*Russia*) : 8,847 cwt. (£87,250) in 1913, 3,624 cwt. (£23,614) in 1922.  
 (*Sweden*) : 17 cwt. (£182) in 1913, 136 cwt. (£826) in 1922.  
 (*France*) : 1,685 cwt. (£9,766) in 1913, 632 cwt. (£4,221) in 1922.  
 (*China*) : 580 cwt. (£2,229) in 1913, 210 cwt. (£1,019) in 1922.

TABLE B 36

IMPORTS OF DRY AND DRY-SALTED HIDES

Total Imports :	605,376 cwt. (£2,554,210) in 1913, 508,076 cwt. (£1,891,161) in 1922.
From Empire Countries :	364,446 cwt. (£1,549,405) in 1913, 233,232 cwt. (£873,182) in 1922.
(Egypt) :	See below for 1913, 107 cwt. (£343) in 1922.
(British West Africa) :	31,322 cwt. (£126,553) in 1913, 9,707 cwt. (£33,802) in 1922.
(Cape of Good Hope) :	90,878 cwt. (£427,358) in 1913, 49,155 cwt. (£192,970) in 1922.
(Natal) :	32,831 cwt. (£151,169) in 1913, 29,094 cwt. (£114,083) in 1922.
(British East Africa) :	44,172 cwt. (£200,910) in 1913, 33,074 cwt. (£108,443) in 1922.
(Aden and Dependencies) :	10,339 cwt. (£48,692) in 1913, 4,602 cwt. (£14,507) in 1922.
(British India) :	70,554 cwt. (£263,951) in 1913, 50,145 cwt. (£200,642) in 1922.
(Straits Settlements) :	40,371 cwt. (£134,501) in 1913, 8,481 cwt. (£25,327) in 1922.
(Hong-Kong) :	978 cwt. (£3,004) in 1913, 3,938 cwt. (£25,119) in 1922.
(Australia) :	36,253 cwt. (£171,707) in 1913, 34,155 cwt. (£120,835) in 1922.
From Foreign Countries :	240,930 cwt. (£1,004,805) in 1913, 274,844 cwt. (£1,017,979) in 1922.
(Russia) :	57,300 cwt. (£207,761) in 1913, 44,946 cwt. (£142,108) in 1922.
(Germany) :	16,669 cwt. (£66,600) in 1913, not known in 1922.
(Netherlands) :	13,462 cwt. (£46,998) in 1913, 10,215 cwt. (£32,578) in 1922.
(Java) :	2,034 cwt. (£7,070) in 1913, 4,693 cwt. (£18,879) in 1922.
(Belgium) :	2,360 cwt. (£10,046) in 1913, 16 cwt. (£75) in 1922.
(France) :	36,393 cwt. (£159,841) in 1913, 10,492 cwt. (£30,935) in 1922.
(French West Africa) :	13,350 cwt. (£68,139) in 1913, not known in 1922.
(French Somaliland) :	13,045 cwt. (£67,544) in 1913, 3,031 cwt. (£8,751) in 1922.
(Madagascar) :	4,717 cwt. (£18,589) in 1913, 7,806 cwt. (£25,390) in 1922.
(French Indo-China) :	16,180 cwt. (£49,237) in 1913, 1,100 cwt. (£4,699) in 1922.
(Egypt) :	6,055 cwt. (£23,207) in 1913, see above for 1922.
(China) :	11,315 cwt. (£50,159) in 1913, 5,191 cwt. (£32,774) in 1922.
(United States) :	1,472 cwt. (£5,617) in 1913, 43,667 cwt. (£179,347) in 1922.
(Colombia) :	8,709 cwt. (£40,007) in 1913, 9,159 cwt. (£37,927) in 1922.
(Ecuador) :	4,950 cwt. (£22,012) in 1913, 7,156 cwt. (£28,897) in 1922.
(Peru) :	636 cwt. (£2,574) in 1913, 9,186 cwt. (£30,459) in 1922.
(Brazil) :	11,546 cwt. (£69,369) in 1913, 21,091 cwt. (£88,724) in 1922.
(Uruguay) :	220 cwt. (£1,200) in 1913, 16,384 cwt. (£63,485) in 1922.
(Argentina) :	2,538 cwt. (£12,701) in 1913, 65,662 cwt. (£234,709) in 1922.

TABLE B 37

## EXPORTS OF IMPORTED DRY AND DRY-SALTED CALFSKINS

Total Exports : 17,096 cwt. (£132,169) in 1913, 4,544 cwt. (£30,390) in 1922.  
 To Empire Countries : 934 cwt. (£4,673) in 1913, none in 1922.  
 To Foreign Countries : 16,162 cwt. (£127,496) in 1913, 4,544 cwt. (£30,390) in 1922.

TABLE B 38

## EXPORTS OF IMPORTED DRY AND DRY-SALTED HIDES

Total Exports : 245,622 cwt. (£1,130,871) in 1913, 168,148 cwt. (£544,423) in 1922.  
 To Empire Countries : 24,121 cwt. (£124,721) in 1913, 1,652 cwt. (£8,013) in 1922.  
 To Foreign Countries : 221,501 cwt. (£1,006,150) in 1913, 166,496 cwt. (£536,410) in 1922.

TABLE B 39

## IMPORTS OF RAW SHEEP- AND LAMBSKINS, WITH WOOL ON.

Total Imports : 734,484 cwt. (£2,415,267) in 1913, (14,851,406 skins) 757,386 cwt. (£2,988,090) in 1922.  
 From Empire Countries : 645,277 cwt. (£2,100,178) in 1913, (11,502,901 skins) 630,178 cwt. (£2,558,928) in 1922.  
 (*Cape of Good Hope*) : 244,022 cwt. (£806,763) in 1913, (4,830,021 skins) 244,693 cwt. (£970,127) in 1922.  
 (*Natal*) : 49,204 cwt. (£159,337) in 1913, (1,232,297 skins) 64,322 cwt. (£257,253) in 1922.  
 (*Aden and Dependencies*) : 13,327 cwt. (£85,572) in 1913, (886,714 skins) 13,181 cwt. (£105,833) in 1922.  
 (*British India*) : 5,729 cwt. (£16,349) in 1913, (222,811 skins) 4,783 cwt. (£30,879) in 1922.  
 (*Australia*) : 272,932 cwt. (£854,866) in 1913, (3,506,820 skins) 254,482 cwt. (£1,020,153) in 1922.  
 (*New Zealand*) : 52,311 cwt. (£152,117) in 1913, (605,518 skins) 42,155 cwt. (£140,792) in 1922.  
 From Foreign Countries : 89,207 cwt. (£315,089) in 1913, (3,348,505 skins) 127,208 cwt. (£429,162) in 1922.  
 (*Russia*) : 16,714 cwt. (£56,778) in 1913, (1,112,954 skins) 26,012 cwt. (£62,529) in 1922.  
 (*Chile*) : 24,619 cwt. (£73,226) in 1913, (398,295 skins) 27,818 cwt. (£71,124) in 1922.  
 (*Argentina*) : 7,903 cwt. (£23,021) in 1913, (329,702 skins) 22,520 cwt. (£70,644) in 1922.

TABLE B 40

IMPORTS OF PICKLED SHEEP- AND LAMBSKINS

Total Imports : 7,533,798 skins (£699,091) in 1913, (4,578,458 skins) 135,481 cwt. (£464,155) in 1922.  
 From Empire Countries : 6,373,270 skins (£568,208) in 1913, (3,554,171 skins) 100,043 cwt. (£361,781) in 1922.  
 (*Australia*) : 668,484 skins (£65,446) in 1913, (163,946 skins) 5,841 cwt. (£17,575) in 1922.  
 (*New Zealand*) : 5,548,269 skins (£489,736) in 1913, (3,225,625 skins) 91,798 cwt. (£330,483) in 1922.  
 From Foreign Countries : 1,160,528 skins (£130,883) in 1913, (1,024,287 skins) 35,438 cwt. (£102,374) in 1922.  
 (*Chile*) : 480,107 skins (£62,159) in 1913, (567,906 skins) 19,826 cwt. (£57,096) in 1922.  
 (*Argentina*) : 152,772 skins (£15,535) in 1913, (110,105 skins) 5,983 cwt. (£21,585) in 1922.

TABLE B 41

EXPORTS OF IMPORTED SHEEP- AND LAMBSKINS, WITH WOOL ON

Total Exports : 312,411 cwt. (£1,069,048) in 1913, (6,227,117 skins) 297,028 cwt. (£1,145,026) in 1922.  
 To Empire Countries : 1,524 cwt. (£4,577) in 1913, (9,555 skins) 627 cwt. (£2,172) in 1922.  
 To Foreign Countries : 310,887 cwt. (£1,064,471) in 1913, (6,217,562 skins) 296,401 cwt. (£1,142,854) in 1922.

TABLE B 42

EXPORTS OF IMPORTED PICKLED SHEEP- AND LAMBSKINS

Total Exports : 6,716,190 skins (£561,460) in 1913, (4,086,843 skins) 90,920 cwt. (£372,694) in 1922.  
 To Empire Countries : 187,340 skins (£14,442) in 1913, (5,947 skins) 99 cwt. (£338) in 1922.  
 To Foreign Countries : 6,528,850 skins (£547,018) in 1913, (4,080,896 skins) 90,821 cwt. (£372,356) in 1922.

TABLE B 43

IMPORTS OF RAW GOATSKINS

Total Imports : 12,094,788 skins (£1,488,893) in 1913, 8,724,207 skins (£1,196,080) in 1922.  
 From Empire Countries : 10,048,737 skins (£1,247,469) in 1913, 8,209,018 skins (£1,124,644) in 1922.



## LEATHER, HIDES, AND SKINS

(*British West Africa*): 197,984 skins (£13,414) in 1913, 1,018,310 skins (£100,939) in 1922.  
 (*Cape of Good Hope*): 2,549,599 skins (£411,182) in 1913, 1,077,569 skins (£190,980) in 1922.  
 (*Natal*): 282,661 skins (£27,491) in 1913, 84,955 skins (£16,619) in 1922.  
 (*British East Africa*): 182,414 skins (£19,081) in 1913; 14,590 skins (£2,418) in 1922.  
 (*Aden and Dependencies*): 842,069 skins (£82,279) in 1913, 807,120 skins (£94,835) in 1922.  
 (*British India*): 5,933,071 skins (£686,097) in 1913, 5,155,878 skins (£713,273) in 1922.  
 From Foreign Countries: 2,046,051 skins (£241,424) in 1913, 515,189 skins (£71,436) in 1922.  
 (*Russia*): 528,337 skins (£53,060) in 1913, 72,760 skins (£10,989) in 1922.  
 (*France*): 118,489 skins (£15,269) in 1913, 36,092 skins (£2,471) in 1922.  
 (*Algeria*): 12,052 skins (£1,398) in 1913, 2,160 skins (£255) in 1922.  
 (*Morocco*): 396,539 skins (£36,097) in 1913, 23,283 skins (£2,263) in 1922.  
 (*China*): 292,877 skins (£28,281) in 1913, 60,117 skins (£8,766) in 1922.

TABLE B 44

## IMPORTS OF UNDRESSED ANIMAL SKINS NOT OTHERWISE SPECIFIED

Total Imports: Not known in 1913, 2,826,512 skins (£103,395) in 1922.  
 From Empire Countries: Not known in 1913, 1,910,231 skins (£49,428) in 1922.  
 (*Aden and Dependencies*): Not known in 1913, 1,511,128 skins (£39,264) in 1922.  
 (*Hong-Kong*): Not known in 1913, 25,461 skins (£3,453) in 1922.  
 (*Australia*): Not known in 1913, 101,354 skins (£669) in 1922.  
 From Foreign Countries: Not known in 1913, 916,281 skins (£53,967) in 1922.

TABLE B 45

## EXPORTS OF IMPORTED GOATSKINS

Total Exports: 8,493,072 skins (£1,019,611) in 1913, 6,000,063 skins (£800,318) in 1922.  
 To Empire Countries: 32,228 skins (£6,917) in 1913, 143,882 skins (£15,542) in 1922.  
 To Foreign Countries: 8,460,844 skins (£1,012,694) in 1913, 5,856,181 skins (£784,776) in 1922.

TABLE B 46

## EXPORTS OF IMPORTED SKINS, OTHER THAN FUR SKINS AND GOAT, SHEEP AND CALF

Total Exports: Included in B 47 for 1913, 1,392,169 skins (£47,885) in 1922.  
 All of these went to foreign countries.

TABLE B 47

EXPORTS OF IMPORTED SKINS AND FURS NOT OTHERWISE SPECIFIED

Total Exports : 15,600,003 skins (£3,157,553) in 1913, included in B 46 for 1922.  
 To Empire Countries : 113,527 skins (£43,466) in 1913, included in B 46 for 1922.  
 To Foreign Countries : 15,486,476 skins (£3,114,087) in 1913, included in B 46 for 1922.

TABLE B 48

IMPORTS OF BARK FOR TANNING

Total Imports : 892,054 cwt. (£348,082) in 1913, 686,141 cwt. (£317,061) in 1922.  
 From Empire Countries : 816,886 cwt. (£327,223) in 1913, 623,363 cwt. (£296,710) in 1922.  
 (*Natal*) : 811,222 cwt. (£325,228) in 1913, 554,134 cwt. (£273,289) in 1922.  
 (*Australia*) : 3,179 cwt. (£1,129) in 1913, not known in 1922.  
 From Foreign Countries : 75,168 cwt. (£20,859) in 1913, 62,778 cwt. (£20,351) in 1922.  
 (*Madagascar*) : Not known in 1913, 8,140 cwt. (£3,277) in 1922.  
 (*Portuguese East Africa*) : 6,280 cwt. (£1,905) in 1913, 4,262 cwt. (£2,079) in 1922.  
 Re-exports : 677,627 cwt. (£276,795) in 1913, 115,337 cwt. (£56,045) in 1922.

TABLE B 49

IMPORTS OF SUMACH

Total Imports : 164,100 cwt. (£83,161) in 1913, 104,467 cwt. (£70,769) in 1922.  
 From Empire Countries : 396 cwt. (£130) in 1913, 20 cwt. (£25) in 1922.  
 From Foreign Countries : 163,704 cwt. (£83,031) in 1913, 104,447 cwt. (£70,744) in 1922.  
 (*Italy*) : 153,200 cwt. (£80,064) in 1913, 103,136 cwt. (£69,305) in 1922.  
 Re-exports : 18,091 cwt. (£8,805) in 1913, 1,334 cwt. (£1,146) in 1922.

TABLE B 50

IMPORTS OF GAMBIER

Total Imports : 101,712 cwt. (£142,026) in 1913, 85,518 cwt. (£141,005) in 1922.  
 From Empire Countries : 81,352 cwt. (£115,168) in 1913, 70,523 cwt. (£116,689) in 1922.  
 (*Straits Settlements*) : 81,148 cwt. (£114,758) in 1913, 68,869 cwt. (£113,388) in 1922.

Almost entirely to Foreign Countries.

## LEATHER, HIDES, AND SKINS

From Foreign Countries : 20,360 cwt. (£26,858) in 1913, 14,995 cwt. (£24,316) in 1922.

(*Dutch Possessions in the Indian Seas*) : 16,436 cwt. (£20,937) in 1913, 4,258 cwt. (£7,522) in 1922.

(*China*) : 900 cwt. (£1,389) in 1913, 8,985 cwt. (£13,678) in 1922.

Re-exports : 8,154 cwt. (£14,833) in 1913, 6,659 cwt. (£12,035) in 1922.

TABLE B 51

## IMPORTS OF MYROBALANS

Total Imports : 565,222 cwt. (£176,855) in 1913, 505,642 cwt. (£184,430) in 1922.

From Empire Countries : 564,462 cwt. (£176,621) in 1913, 503,043 cwt. (£183,217) in 1922.

(*British India*) : 564,462 cwt. (£176,621) in 1913, 501,043 cwt. (£182,590) in 1922.

From Foreign Countries : 760 cwt. (£234) in 1913, 2,599 cwt. (£1,213) in 1922.

Re-exports : 22,003 cwt. (£6,277) in 1913, 15,082 cwt. (£4,469) in 1922.

TABLE B 52

## IMPORTS OF VALONIA

Total Imports : 346,092 cwt. (£164,208) in 1913, 110,090 cwt. (£64,980) in 1922.

From Empire Countries : None in 1913, 1,380 cwt. (£663) in 1922.

From Foreign Countries : 346,092 cwt. (£164,208) in 1913, 108,710 cwt. (£64,317) in 1922.

(*Turkey, Asiatic*) : 337,733 cwt. (£160,304) in 1913, 24 cwt. (£18) in 1922.

(*Smyrna*) : Not known in 1913, 99,628 cwt. (£59,225) in 1922.

Re-exports : 3,841 cwt. (£2,706) in 1913, 4,085 cwt. (£2,061) in 1922.

TABLE B 53

## IMPORTS OF CRUDE TANNING MATERIALS NOT OTHERWISE SPECIFIED

Total Imports : 32,935 cwt. (£16,533) in 1913, 39,031 cwt. (£26,804) in 1922.

From Empire Countries : 8,194 cwt. (£3,904) in 1913, 8,857 cwt. (£5,467) in 1922.

(*British India*) : 7,975 cwt. (£3,828) in 1913, 5,605 cwt. (£3,509) in 1922.

(*British West India Islands*) : Not known in 1913, 1,452 cwt. (£923) in 1922.

From Foreign Countries : 24,741 cwt. (£12,629) in 1913, 30,174 cwt. (£21,337) in 1922.

(*Dutch West India Islands*) : 5,795 cwt. (£2,855) in 1913, 5,751 cwt. (£3,986) in 1922.

(*Peru*) : 4,890 cwt. (£2,936) in 1913, 1,740 cwt. (£1,229) in 1922.

(*Chile*) : Not known in 1913, 18,594 cwt. (£13,200) in 1922.

Re-exports : 7,579 cwt. (£3,832) in 1913, 4,653 cwt. (£2,735) in 1922.

TABLE B 54

## IMPORTS OF OAK EXTRACT

Total Imports : Included in B 57 for 1913, 18,128 cwt. (£19,589) in 1922.  
 From Foreign Countries : Included in B 57 for 1913, 18,128 cwt. (£19,589) in 1922.  
*(Belgium)* : Included in B 57 for 1913, 1,413 cwt. (£1,617) in 1922.  
*(France)* : Included in B 57 for 1913, 2,999 cwt. (£2,920) in 1922.  
*(Italy)* : Included in B 57 for 1913, 10,191 cwt. (£11,168) in 1922.  
 Re-exports : Included in B 57 for 1913, 156 cwt. (£144) in 1922.

TABLE B 55

## IMPORTS OF CHESTNUT EXTRACT

Total Imports : Included in B 57 for 1913, 470,505 cwt. (£419,457) in 1922.  
 From Foreign Countries : Included in B 57 for 1913, 470,505 cwt. (£419,457) in 1922.  
*(France)* : Included in B 57 for 1913, 365,880 cwt. (£326,691) in 1922.  
*(Italy)* : Included in B 57 for 1913, 87,752 cwt. (£75,711) in 1922.  
*(United States)* : Included in B 57 for 1913, 5,341 cwt. (£6,201) in 1922.  
 Re-exports : Included in B 57 for 1913, 4,775 cwt. (£6,949) in 1922.

TABLE B 56

## IMPORTS OF QUEBRACHO EXTRACT

Total Imports : Included in B 57 for 1913, 251,988 cwt. (£306,872) in 1922.  
 From Empire Countries : Included in B 57 for 1913, 1,490 cwt. (£1,593) in 1922.  
 From Foreign Countries : Included in B 57 for 1913, 250,498 cwt. (£305,279) in 1922.  
*(Argentina)* : Included in B 57 for 1913, 221,390 cwt. (£268,979) in 1922.  
 Re-exports : Included in B 57 for 1913, 78,582 cwt. (£101,507) in 1922.

TABLE B 57

## IMPORTS OF TANNING EXTRACTS (NOT INCLUDING OAK, CHESTNUT AND QUEBRACHO IN 1922)

Total Imports : £922,600 in 1913, 193,315 cwt. (£225,861) in 1922.  
 From Empire Countries : £42,443 in 1913, 162,634 cwt. (£181,279) in 1922.  
*(Natal)* : Not known in 1913, 128,078 cwt. (£147,559) in 1922.  
*(British India)* : £13,343 in 1913, 28,174 cwt. (£26,613) in 1922.  
*(Straits Settlements)* : £4,695 in 1913, 409 cwt. (£550) in 1922.  
*(Canada)* : £4,136 in 1913, 5,982 cwt. (£6,557) in 1922.  
*(British West India Islands)* : £19,064 in 1913, not known in 1922.

From Foreign Countries: £880,157 in 1913, 30,681 cwt. (£44,582) in 1922.

(Germany): £25,747 in 1913, 1,993 cwt. (£1,016) in 1922.

(Dutch Borneo): £6,830 in 1913, not known in 1922.

(Belgium): £18,955 in 1913, 874 cwt. (£1,160) in 1922.

(France): £429,886 in 1913, 1,597 cwt. (£4,241) in 1922.

(Italy): £88,047 in 1913, 9,217 cwt. (£10,223) in 1922.

(Turkey Asiatic): £26,107 in 1913, not known in 1922.

(Smyrna): Not known in 1913, 10,231 cwt. (£15,545) in 1922.

(United States): £46,028 in 1913, 3,763 cwt. (£6,486) in 1922.

(Argentina): £167,196 in 1913, not known in 1922.

Re-exports: Not known in 1913, 36,864 cwt. (£55,208) in 1922.

TABLE B 58

IMPORTS OF ROUGH-TANNED HIDE LEATHER (INCLUDING SOLE LEATHER BUT NOT ROUGH-TANNED CALF)

Total Imports: 760,935 cwt. (£3,949,199) in 1913, 334,189 cwt. (£2,204,500) in 1922.

From Empire Countries: 302,723 cwt. (£1,992,485) in 1913, 181,022 cwt. (£1,283,066) in 1922.

(British India): 196,894 cwt. (£1,360,500) in 1913, included in B 59, 60, 62 and 63 in 1922.

(Straits Settlements): 4,709 cwt. (£24,944) in 1913, included in B 59, 60, 62 and 63 in 1922.

(Australia): 45,844 cwt. (£277,360) in 1913, included in B 59, 60, 62 and 63 in 1922.

(New Zealand): 1,988 cwt. (£12,964) in 1913, included in B 59, 60, 62 and 63 in 1922.

(Canada): 50,515 cwt. (£295,457) in 1913, included in B 59, 60, 62 and 63 in 1922.

From Foreign Countries: 458,212 cwt. (£1,956,714) in 1913, 153,167 cwt. (£921,434) in 1922.

(Germany): 62,205 cwt. (£223,878) in 1913, included in B 59, 60, 62 and 63 in 1922.

(Belgium): 14,986 cwt. (£55,583) in 1913, included in B 59, 60, 62 and 63 in 1922.

(France): 8,119 cwt. (£31,902) in 1913, included in B 59, 60, 62 and 63 in 1922.

(United States): 362,678 cwt. (£1,589,496) in 1913, included in B 59, 60, 62 and 63 in 1922.

Re-exports: 14,978 cwt. (£96,800) in 1913, 19,893 cwt. (£150,327) in 1922.

TABLE B 59

## IMPORTS OF SOLE LEATHER

Total Imports : Included in B 58 for 1913, 149,911 cwt. (£952,694) in 1922.  
 From Empire Countries : Included in B 58 for 1913, 41,202 cwt. (£291,876) in 1922.  
*(Australia)* : Included in B 58 for 1913, 26,168 cwt. (£177,039) in 1922.  
*(Canada)* : Included in B 58 for 1913, 12,321 cwt. (£91,503) in 1922.  
 From Foreign Countries : Included in B 58 for 1913, 108,709 cwt. (£660,818) in 1922.  
*(France)* : Included in B 58 for 1913, 3,993 cwt. (£58,133) in 1922.  
*(Austria)* : Included in B 58 for 1913, 5,539 cwt. (£46,278) in 1922.  
*(Hungary)* : Included in B 58 for 1913, 1,008 cwt. (£10,043) in 1922.  
*(Czecho-Slovakia)* : Included in B 58 for 1913, 3,639 cwt. (£30,242) in 1922.  
*(United States)* : Included in B 58 for 1913, 84,186 cwt. (£438,458) in 1922.  
 Re-exports : Included in B 58 for 1913, 5,950 cwt. (£54,781) in 1922.

TABLE B 60

## IMPORTS OF ROUGH-TANNED OX AND COW-HIDE LEATHER

Total Imports : Included in B 58 for 1913, 148,279 cwt. (£1,086,729) in 1922.  
 From Empire Countries : Included in B 58 for 1913, 130,874 cwt. (£946,269) in 1922.  
*(British India)* <sup>1</sup> : Included in B 58 for 1913, 126,087 cwt. (£911,072) in 1922.  
*(Australia)* : Included in B 58 for 1913, 3,138 cwt. (£21,699) in 1922.  
 From Foreign Countries : Included in B 58 for 1913, 17,405 cwt. (£140,460) in 1922.  
*(France)* : Included in B 58 for 1913, 2,363 cwt. (£26,262) in 1922.  
*(Austria)* : Included in B 58 for 1913, 2,253 cwt. (£19,952) in 1922.  
*(Czecho-Slovakia)* : Included in B 58 for 1913, 1,709 cwt. (£13,691) in 1922.  
*(United States)* : Included in B 58 for 1913, 6,380 cwt. (£57,059) in 1922.  
 Re-exports : Included in B 58 for 1913, 3,957 cwt. (£30,149) in 1922.

TABLE B 61

## IMPORTS OF ROUGH-TANNED CALFSKINS

Total Imports : 13,363 cwt. (£105,243) in 1913, 5,982 cwt. (£58,301) in 1922.  
 From Empire Countries : 11,108 cwt. (£86,761) in 1913, 5,681 cwt. (£54,904) in 1922.  
*(British India)* : 10,420 cwt. (£79,148) in 1913, 5,681 cwt. (£54,904) in 1922.  
*(Australia)* : 619 cwt. (£7,282) in 1913, not known in 1922.

<sup>1</sup> Most of the leather included under this heading is probably that known by the trade designation of "East India Tanned Kip." A separate record is now made by the authorities of the latter, but it is clear that the description is not generally used by importers (see B 62).

## LEATHER, HIDES, AND SKINS

From Foreign Countries : 2,255 cwt. (£18,482) in 1913, 301 cwt. (£3,397) in 1922.

(*France*) : 264 cwt. (£2,033) in 1913, 164 cwt. (£1,983) in 1922.

(*United States*) : 1,254 cwt. (£6,652) in 1913, not known in 1922.

Re-exports : 115 cwt. (£1,041) in 1913, 318 cwt. (£2,208) in 1922.

TABLE B 62

## IMPORTS OF ROUGH-TANNED KIPS

Total Imports : Included in B 58 for 1913, 2,428 cwt. (£16,022) in 1922.

From Empire Countries : Included in B 58 for 1913, 2,401 cwt. (£15,831) in 1922.

(*British India*)<sup>1</sup> : Included in B 58 for 1913, 2,401 cwt. (£15,831) in 1922.

From Foreign Countries : Included in B 58 for 1913, 27 cwt. (£191) in 1922.

(*United States*) : Included in B 58 for 1913, 6 cwt. (£26) in 1922.

Re-exports : Included in B 58 for 1913, 9,986 cwt. (£65,397) in 1922.

TABLE B 63

## IMPORTS OF ROUGH-TANNED HIDE LEATHER, NOT OTHERWISE SPECIFIED

Total Imports : Included in B 58 for 1913, 33,571 cwt. (£149,055) in 1922.

From Empire Countries : Included in B 58 for 1913, 6,545 cwt. (£29,090) in 1922.

(*British India*) : Included in B 58 for 1913, 5,943 cwt. (£26,101) in 1922.

From Foreign Countries : Included in B 58 for 1913, 27,026 cwt. (£119,965) in 1922.

(*France*) : Included in B 58 for 1913, 2,091 cwt. (£36,429) in 1922.

(*United States*) : Included in B 58 for 1913, 20,915 cwt. (£66,320) in 1922.

Re-exports : Included in B 58 for 1913, 2,319 cwt. (£14,329) in 1922.

TABLE B 64

## IMPORTS OF ROUGH-TANNED GOATSKINS

Total Imports : 77,287 cwt. (£958,841) in 1913, 34,901 cwt. (£688,505) in 1922.

From Empire Countries : 75,561 cwt. (£943,051) in 1913, 33,656 cwt. (£677,952) in 1922.

(*British West Africa*) : 12,588 cwt. (£91,499) in 1913, 793 cwt. (£9,308) in 1922.

(*British India*) : 62,935 cwt. (£851,091) in 1913, 31,045 cwt. (£653,586) in 1922.

From Foreign Countries : 1,726 cwt. (£15,790) in 1913, 1,245 cwt. (£10,553) in 1922.

(*Turkey*) : 1,085 cwt. (£8,786) in 1913, not known in 1922.

Re-exports : 65,342 cwt. (£912,548) in 1913, 15,179 cwt. (£384,141) in 1922.

<sup>1</sup> See note to B 60. The apparent excess of re-exports over imports is probably largely accounted for, by the fact that goods have been included under the heading "Tanned Kips" for re-export which were imported as "Rough-Tanned Cow Hides."

TABLE B 65

## IMPORTS OF ROUGH-TANNED SHEEPSKINS

Total Imports :	88,646 cwt. (£819,076) in 1913, 68,518 cwt. (£918,876) in 1922.
From Empire Countries :	72,275 cwt. (£701,095) in 1913, 63,537 cwt. (£853,532) in 1922.
(British India) :	39,253 cwt. (£547,914) in 1913, 28,604 cwt. (£600,919) in 1922.
(Australia) :	30,217 cwt. (£139,640) in 1913, 26,942 cwt. (£185,267) in 1922.
From Foreign Countries :	16,371 cwt. (£117,981) in 1913, 4,981 cwt. (£65,344) in 1922.
(France) :	6,638 cwt. (£48,292) in 1913, 1,405 cwt. (£30,040) in 1922.
(Turkey Asiatic) :	6,167 cwt. (£45,866) in 1913, not known in 1922.
Re-exports :	49,938 cwt. (£523,881) in 1913, 34,368 cwt. (£452,603) in 1922.

TABLE B 66

## IMPORTS OF UNSPECIFIED ROUGH-TANNED SKINS

Total Imports :	6,665 cwt. (£33,438) in 1913, 730 cwt. (£10,232) in 1922.
From Empire Countries :	724 cwt. (£4,181) in 1913, 44 cwt. (£611) in 1922.
From Foreign Countries :	5,941 cwt. (£29,257) in 1913, 686 cwt. (£9,621) in 1922.
Re-exports :	1,562 cwt. (£10,360) in 1913, 93 cwt. (£1,805) in 1922.

TABLE B 67

## IMPORTS OF BOX AND WILLOW CALF UPPER LEATHER

Total Imports :	46,834 cwt. (£1,196,640) in 1913, 35,163 cwt. (£1,557,780) in 1922.
From Empire Countries :	35 cwt. (£666) in 1913, 1,369 cwt. (£62,590) in 1922.
(Canada) :	9 cwt. (£135) in 1913, 1,369 cwt. (£62,566) in 1922.
From Foreign Countries :	46,799 cwt. (£1,195,974) in 1913, 33,794 cwt. (£1,495,190) in 1922.
(Germany) :	28,313 cwt. (£826,273) in 1913, 13,607 cwt. (£535,407) in 1922.
(Netherlands) :	Not known in 1913, 8,245 cwt. (£390,377) in 1922.
(France) :	10,521 cwt. (£167,580) in 1913, 1,388 cwt. (£38,390) in 1922.
(United States) :	6,185 cwt. (£158,236) in 1913, 9,483 cwt. (£482,634) in 1922.
Re-exports :	612 cwt. (£21,181) in 1913, 829 cwt. (£57,194) in 1922.



## LEATHER, HIDES, AND SKINS

TABLE B 68

## IMPORTS OF GLACÉ KID UPPER LEATHER

Total Imports : 47,999 cwt. (£1,578,371) in 1913, 30,472 cwt. (£2,028,311) in 1922.  
 From Empire Countries : 80 cwt. (£2,400) in 1913, 50 cwt. (£2,554) in 1922.  
 From Foreign Countries : 47,919 cwt. (£1,575,971) in 1913, 30,422 cwt. (£2,025,757) in 1922.  
 (Germany) : Not known in 1913, 830 cwt. (£51,065) in 1922.  
 (Netherlands) : Not known in 1913, 707 cwt. (£56,645) in 1922.  
 (France) : 74 cwt. (£2,173) in 1913, 2,501 cwt. (£179,665) in 1922.  
 (Switzerland) : Not known in 1913, 714 cwt. (£51,709) in 1922.  
 (United States) : 45,964 cwt. (£1,510,164) in 1913, 24,420 cwt. (£1,620,802) in 1922.  
 Re-exports : 4,455 cwt. (£190,993) in 1913, 2,061 cwt. (£172,986) in 1922.

TABLE B 69

## IMPORTS OF PATENT, VARNISHED, JAPANED, AND ENAMELLED LEATHER

Total Imports : 19,872 cwt. (£613,603) in 1913, 18,999 cwt. (£1,110,472) in 1922.  
 From Empire Countries : 234 cwt. (£4,846) in 1913, 1,424 cwt. (£98,645) in 1922.  
 (Canada) : 234 cwt. (£4,846) in 1913, 1,424 cwt. (£98,645) in 1922.  
 From Foreign Countries : 19,438 cwt. (£608,757) in 1913, 17,575 cwt. (£1,011,827) in 1922.  
 (Germany) : 15,442 cwt. (£451,286) in 1913, 1,914 cwt. (£68,549) in 1922.  
 (Netherlands) : Not known in 1913, 3,193 cwt. (£215,451) in 1922.  
 (France) : Not known in 1913, 275 cwt. (£20,527) in 1922.  
 (United States) : 3,403 cwt. (£142,504) in 1913, 12,140 cwt. (£703,720) in 1922.  
 Re-exports : 1,263 cwt. (£61,797) in 1913, 1,408 cwt. (£97,236) in 1922.

TABLE B 70

## IMPORTS OF UPPER LEATHER, OTHER THAN BOX AND WILLOW CALF, GLACÉ KID AND PATENT

Total Imports : Included in B 71 for 1913, 30,593 cwt. (£976,461) in 1922.  
 From Empire Countries : Included in B 71 for 1913, 737 cwt. (£18,641) in 1922.  
 From Foreign Countries : Included in B 71 for 1913, 29,856 cwt. (£957,820) in 1922.  
 (Germany) : Included in B 71 in 1913, 1,336 cwt. (£37,944) in 1922.  
 (Netherlands) : Included in B 71 for 1913, 2,154 cwt. (£75,478) in 1922.  
 (France) : Included in B 71 for 1913, 3,080 cwt. (£116,855) in 1922.  
 (United States) : Included in B 71 for 1913, 21,545 cwt. (£677,225) in 1922.  
 Re-exports : Included in B 71 for 1913, 1,335 cwt. (£70,805) in 1922.

TABLE B 71

## IMPORTS OF DRESSED LEATHER, INCLUDING UPPER LEATHER, OTHER THAN BOX AND WILLOW CALF, GLACÉ KID, AND PATENT

Total Imports : 114,380 cwt. (£1,305,790) in 1913, included in B 72, 73, 74 for 1922.  
 From Empire Countries : 11,838 cwt. (£62,517) in 1913, included in B 72, 73, 74 for 1922.  
 (Canada) : 11,019 cwt. (£57,689) in 1913, included in B 72, 73, 74 for 1922.  
 From Foreign Countries : 102,542 cwt. (£1,243,273) in 1913, included in B 72, 73, 74 for 1922.  
 (Germany) : 16,487 cwt. (£326,448) in 1913, included in B 72, 73, 74 for 1922.  
 (Belgium) : 2,775 cwt. (£56,165) in 1913, included in B 72, 73, 74 for 1922.  
 (France) : 41,401 cwt. (£525,163) in 1913, included in B 72, 73, 74 for 1922.  
 (United States) : 38,713 cwt. (£281,183) in 1913, included in B 72, 73, 74 for 1922.  
 Re-exports : 10,348 cwt. (£228,432) in 1913, included in B 72, 73, 74 for 1922.

TABLE B 72

## IMPORTS OF DRESSED LEATHER NOT OTHERWISE SPECIFIED

Total Imports : Included in B 71 for 1913, 26,557 cwt. (£671,273) in 1922.  
 From Empire Countries : Included in B 71 for 1913, 350 cwt. (£13,450) in 1922.  
 From Foreign Countries : Included in B 71 for 1913, 26,207 cwt. (£657,823) in 1922.  
 (France) : Included in B 71 for 1913, 7,706 cwt. (£349,664) in 1922.  
 (United States) : Included in B 71 for 1913, 13,027 cwt. (£216,949) in 1922.  
 Re-exports : Included in B 71 for 1913, 806 cwt. (£26,623) in 1922.

TABLE B 73.

## IMPORTS OF HIDE, CALF, AND KIP DRESSED LEATHER, OTHER THAN UPPER LEATHER

Total Imports : Included in B 71 for 1913, 3,782 cwt. (£182,842) in 1922.  
 From Empire Countries : Included in B 71 for 1913, 42 cwt. (£2,141) in 1922.  
 From Foreign Countries : Included in B 71 for 1913, 3,740 cwt. (£180,701) in 1922.  
 (France) : Included in B 71 for 1913, 2,354 cwt. (£114,694) in 1922.  
 (United States) : Included in B 71 for 1913, 874 cwt. (£44,911) in 1922.  
 Re-exports : Included in B 71 for 1913, 103 cwt. (£5,439) in 1922.

TABLE B 74

IMPORTS OF SHEEP, GOAT, AND KID DRESSED LEATHER, OTHER THAN  
UPPER LEATHER

Total Imports : Included in B 71 for 1913, 6,714 cwt. (£319,472) in 1922.  
 From Empire Countries : Included in B 71 for 1913, 18 cwt. (£723) in 1922.  
 From Foreign Countries : Included in B 71 for 1913, 6,696 cwt. (£318,749) in 1922.  
 (France) : Included in B 71 for 1913, 4,786 cwt. (£232,214) in 1922.  
 (United States) : Included in B 71 for 1913, 648 cwt. (£28,271) in 1922.  
 Re-exports : Included in B 71 for 1913, 171 cwt. (£10,408) in 1922.

TABLE B 75

## IMPORTS OF LEATHER BOOTS AND SHOES

Total Imports : 226,184 doz. pairs (£839,133) in 1913, included in B 77 for 1922.  
 From Empire Countries : 615 doz. pairs (£798) in 1913, included in B 77 for 1922.  
 From Foreign Countries : 225,569 doz. pairs (£838,335) in 1913, included in B 77 for 1922.  
 (Germany) : 32,947 doz. pairs (£76,522) in 1913, included in B 77 for 1922.  
 (France) : 25,352 doz. pairs (£113,101) in 1913, included in B 77 for 1922.  
 (Switzerland) : 60,178 doz. pairs (£192,164) in 1913, included in B 77 for 1922.  
 (Austria-Hungary) : 24,691 doz. pairs (£78,530) in 1913, included in B 77 for 1922.  
 (United States) : 73,004 doz. pairs (£352,497) in 1913, included in B 77 for 1922.  
 Re-exports : 14,941 doz. pairs (£38,836) in 1913, included in B 77 for 1922.

TABLE B 76

## IMPORTS OF LEATHER BOOTS AND SHOES (MEN'S)

Total Imports : Included in B 75 for 1913, 17,103 doz. pairs (£136,676) in 1922.  
 From Empire Countries : Included in B 75 for 1913, 1,556 doz. pairs (£7,296) in 1922.  
 From Foreign Countries : Included in B 75 for 1913, 15,547 doz. pairs (£129,380) in 1922.  
 (Germany) : Included in B 75 for 1913, 1,465 doz. pairs (£3,290) in 1922.  
 (Switzerland) : Included in B 75 for 1913, 6,114 doz. pairs (£56,286) in 1922.  
 (United States) : Included in B 75 for 1913, 6,406 doz. pairs (£61,787) in 1922.  
 Re-exports : Included in B 75 for 1913, 804 doz. pairs (£3,863) in 1922.

TABLE B 77

## IMPORTS OF LEATHER BOOTS AND SHOES (WOMEN'S AND CHILDREN'S)

Total Imports :	Included in B 75 for 1913, 109,979 doz. pairs (£899,558) in 1922.
From Empire Countries :	Included in B 75 for 1913, 1,153 doz. pairs (£8,374) in 1922.
From Foreign Countries :	Included in B 75 for 1913, 108,826 doz. pairs (£891,184) in 1922.
(Germany) :	Included in B 75 for 1913, 12,996 doz. pairs (£18,326) in 1922.
(Belgium) :	Included in B 75 for 1913, 2,274 doz. pairs (£25,783) in 1922.
(France) :	Included in B 75 for 1913, 16,170 doz. pairs (£176,430) in 1920.
(Switzerland) :	Included in B 75 for 1913, 42,947 doz. pairs (£428,648) in 1922.
(Austria) :	Included in B 75 for 1913, 6,675 doz. pairs (£39,810) in 1922.
(Czecho-Slovakia) :	Included in B 75 for 1913, 7,642 doz. pairs (£34,763) in 1922.
(United States) :	Included in B 75 for 1913, 19,609 doz. pairs (£164,935) in 1922.
Re-exports :	Included in B 75 for 1913, 12,806 doz. pairs (£103,502) in 1922.

TABLE B 78

## IMPORTS OF BOOTS, SHOES, AND SLIPPERS, OTHER THAN LEATHER AND RUBBER

Total Imports :	139,766 doz. pairs (£92,899) in 1913, 148,485 doz. pairs (£266,896) in 1922.
From Empire Countries :	133 doz. pairs (£128) in 1913, 919 doz. pairs (£1,833) in 1922.
From Foreign Countries :	139,633 doz. pairs (£92,771) in 1913, 147,566 doz. pairs (£265,063) in 1922.
Re-exports :	13,120 doz. pairs (£8,310) in 1913, 3,511 doz. pairs (£7,977) in 1922.

TABLE B 79

## IMPORTS OF LEATHER GLOVES

Total Imports :	1,473,943 doz. pairs (£1,800,341) in 1913, 448,382 doz. pairs (£1,206,898) in 1922.
From Empire Countries :	72 doz. pairs (£141) in 1913, 586 doz. pairs (£2,352) in 1922.
From Foreign Countries :	1,473,871 doz. pairs (£1,800,200) in 1913, 447,796 doz. pairs (£1,204,546) in 1922.
(Germany) :	343,009 doz. pairs (£380,166) in 1913, 18,171 doz. pairs (£21,634) in 1922.
(Belgium) :	278,916 doz. pairs (£369,290) in 1913, 51,745 doz. pairs (£155,823) in 1922.

## LEATHER, HIDES, AND SKINS

(France): 466,688 doz. pairs (£572,704) in 1913, 189,576 doz. pairs (£688,818) in 1922.

(Italy): 11,379 doz. pairs (£11,163) in 1913, 49,886 doz. pairs (£82,679) in 1922.

(Austria): 369,886 doz. pairs (£461,237) in 1913, 1,221 doz. pairs (£3,476) in 1922.

(Czecho-Slovakia): Not known in 1913, 32,272 doz. pairs (£75,527) in 1922.

(United States): 2,159 doz. pairs (£3,445) in 1913, 7,866 doz. pairs (£11,707) in 1922.

Re-exports: 208,130 doz. pairs (£266,230) in 1913, 54,323 doz. pairs (£161,209) in 1922.

TABLE B 80

## IMPORTS OF LEATHER TRUNKS AND BAGS

Total Imports: Included in B 85 for 1913, £24,212 in 1922.

From Empire Countries: Included in B 85 for 1913, £232 in 1922.

From Foreign Countries: Included in B 85 for 1913, £23,980 in 1922.

(Germany): Included in B 85 for 1913, £19,423 in 1922.

Re-exports: Included in B 85 for 1913, £1,697 in 1922.

TABLE B 81

## IMPORTS OF SADDLERY AND HARNESS

Total Imports: Included in B 85 for 1913, 140 cwt. (£1,565) in 1922.

From Empire Countries: Included in B 85 for 1913, (£16) in 1922.

From Foreign Countries: Included in B 85 for 1913, 140 cwt. (£1,549) in 1922.

Re-exports: Included in B 85 for 1913, 6 cwt. (£117) in 1922.

TABLE B 82

## IMPORTS OF FANCY LEATHER GOODS

Total Imports: Included in B 85 for 1913, £148,516 in 1922.

From Empire Countries: Included in B 85 for 1913, £179 in 1922.

From Foreign Countries: Included in B 85 for 1913, £148,337 in 1922.

(Germany): Included in B 85 for 1913, £103,251 in 1922.

(France): Included in B 85 for 1913, £19,862 in 1922.

(Austria): Included in B 85 for 1913, £7,805 in 1922.

Re-exports: Included in B 85 for 1913, £13,877 in 1922.

TABLE B 83

## IMPORTS OF LEATHER SPORTS GOODS

Total Imports: Included in B 85 for 1913, £1,650 in 1922.

From Empire Countries: Included in B 85 for 1913, £954 in 1922.

From Foreign Countries: Included in B 85 for 1913, £696 in 1922.

Re-exports: Included in B 85 for 1913, none in 1922.

TABLE B 84

IMPORTS OF ARTIFICIAL LEATHER GOODS

Total Imports<sup>1</sup> : Included in B 85 for 1913, £192,711 in 1922.  
 From Foreign Countries : Included in B 85 for 1913, £192,711 in 1922.  
 Re-exports : Included in B 85 for 1913, £703 in 1922.

TABLE B 85

IMPORTS OF LEATHER MANUFACTURES NOT OTHERWISE SPECIFIED

Total Imports<sup>1</sup> : £991,442 in 1913, £90,827 in 1922.  
 From Empire Countries : £347 in 1913, £1,529 in 1922.  
 From Foreign Countries : £991,095 in 1913, £89,298 in 1922.  
 (Germany) : £881,564 in 1913, £13,236 in 1922.  
 (United States) : £32,531 in 1913, £53,346 in 1922.  
 Re-exports : £77,356 in 1913, £14,139 in 1922.

TABLE B 86

IMPORTS OF LEATHER BELTING

Total Imports : 5,192 cwt. (£66,879) in 1913, 3,042 cwt. (£87,136) in 1922.  
 From Empire Countries : None in 1913, 11 cwt. (£294) in 1922.  
 From Foreign Countries : 5,192 cwt. (£66,879) in 1913, 3,031 cwt. (£86,842) in 1922.  
 (Germany) : 1,707 cwt. (£19,329) in 1913, 312 cwt. (£6,743) in 1922.  
 (Netherlands) : 1,519 cwt. (£18,411) in 1913, 864 cwt. (£18,688) in 1922.  
 (France) : 191 cwt. (£3,389) in 1913, 699 cwt. (£25,548) in 1922.  
 (United States) : 1,215 cwt. (£18,675) in 1913, 782 cwt. (£27,204) in 1922.  
 Re-exports : 255 cwt. (£3,489) in 1913, 434 cwt. (£17,431) in 1922.

TABLE B 87

IMPORTS OF WOVEN HAIR OR COTTON MACHINERY BELTING

Total Imports : 3,961 cwt. (£38,669) in 1913, 185 cwt. (£3,381) in 1922.  
 From Empire Countries : None in 1913, 24 cwt. (£730) in 1922.  
 From Foreign Countries : 3,961 cwt. (£38,669) in 1913, 161 cwt. (£2,651) in 1922.  
 Re-exports : 112 cwt. (£834) in 1913, 34 cwt. (£453) in 1922.

<sup>1</sup> The 1913 figures include those of entries which in 1922 would have been included in B 80 to 84.

TABLE B 88

IMPORTS OF BELTING MACHINERY, OTHER THAN LEATHER AND WOVEN  
HAIR OR COTTON

Total Imports: 6,703 cwt. (£63,033) in 1913, 1,619 cwt. (£25,842) in 1922.  
 From Empire Countries: 37 cwt. (£781) in 1913, 104 cwt. (£1,661) in 1922.  
 From Foreign Countries: 6,666 cwt. (£62,252) in 1913, 1,515 cwt. (£24,181) in 1922.  
 Re-exports: 92 cwt. (£1,071) in 1913, 191 cwt. (£2,686) in 1922.

TABLE B 89

EXPORTS OF RAW HIDES FROM IMPORTED CATTLE SLAUGHTERED  
IN THE UNITED KINGDOM

Total Exports: 19,424 cwt. (£74,052) in 1913, 3,667 cwt. (£15,839) in 1922.  
 To Empire Countries: 6,355 cwt. (£27,970) in 1913, 32 cwt. (£200) in 1922.  
 To Foreign Countries: 13,069 cwt. (£46,082) in 1913, 3,635 cwt. (£15,639) in 1922.

TABLE B 90

## EXPORTS OF RAW HIDES AND CALFSKINS

Total Exports: 198,330 cwt. (£641,202) in 1913, 141,077 cwt. (£425,471) in 1922.  
 To Empire Countries: 12,857 cwt. (£49,546) in 1913, 7,051 cwt. (£33,600) in 1922.  
 To Foreign Countries: 185,473 cwt. (£591,656) in 1913, 134,026 cwt. (£391,871) in 1922.  
 (Germany): 63,441 cwt. (£139,947) in 1913, 40,801 cwt. (£89,351) in 1922.  
 (Netherlands): 19,032 cwt. (£66,446) in 1913, 21,674 cwt. (£55,317) in 1922.  
 (United States): 60,332 cwt. (£226,752) in 1913, 45,022 cwt. (£168,290) in 1922.

TABLE B 91

## EXPORTS OF SHEEP- AND LAMBSKINS WITH WOOL ON

Total Exports: 3,721 cwt. (£13,922) in 1913, (331,751 skins) 8,414 cwt. (£30,951) in 1922.  
 To Empire Countries: 37 cwt. (£364) in 1913, (864 skins) 8 cwt. (£183) in 1922.  
 To Foreign Countries: 3,684 cwt. (£13,558) in 1913, (330,887 skins) 8,406 cwt. (£30,768) in 1922.  
 (Germany): 783 cwt. (£3,657) in 1913, (103,237 skins) 1,132 cwt. (£6,862) in 1922.  
 (Belgium): 1,067 cwt. (£2,273) in 1913, (44,971 skins) 3,150 cwt. (£5,661) in 1922.  
 (Italy): 2 cwt. (£8) in 1913, (85,002 skins) 1,557 cwt. (£6,864) in 1922.  
 (United States): Not known for 1913, (75,658 skins) 1,401 cwt. (£4,648) in 1922.

TABLE B 92

EXPORTS OF PICKLED SHEEP- AND LAMBSKINS, INCLUDING IMPORTED SKINS  
FELLMONGERED IN THE UNITED KINGDOM

Total Exports : 8,493,764 skins (£500,956) in 1913, (4,384,440 skins) 90,525 cwt. (£267,360) in 1922.  
To Empire Countries : 89,132 skins (£4,446) in 1913, (13 skins) 1 cwt. (£5) in 1922.  
To Foreign Countries : 8,404,632 skins (£496,510) in 1913, (4,384,427 skins) 90,524 cwt. (£267,355) in 1922.  
(Belgium) : 325,525 skins (£19,186) in 1913, (1,121,010 skins) 39,407 cwt. (£74,288) in 1922.  
(United States) : 7,935,463 skins (£470,880) in 1913, (3,168,874 skins) 49,244 cwt. (£179,444) in 1922.

TABLE B 93

EXPORTS OF QUEBRACHO EXTRACT

(NOTE.—Quebracho extract is not manufactured from the raw material in the United Kingdom. Probably some of the extract referred to below should have been described as "Re-exports of Foreign Manufactures." On the other hand, some quebracho extract (which is imported in a solid form) is converted into liquid extract and this may be exported under the heading of British manufacture).

Total Exports : Included with other chemicals in 1913, 26,098 cwt. (£28,662) in 1922.  
To Empire Countries : Included with other chemicals in 1913, 8,905 cwt. (£10,929) in 1922.  
To Foreign Countries : Included with other chemicals in 1913, 17,193 cwt. (£17,733) in 1922.

TABLE B 94

EXPORTS OF TANNING EXTRACTS OTHER THAN QUEBRACHO

Total Exports : Included with other chemicals in 1913, 17,174 cwt. (£27,114) in 1922.  
To Empire Countries : Included with other chemicals in 1913, 6,563 cwt. (£11,683) in 1922.  
(British India) : Included with other chemicals in 1913, 308 cwt. (£1,107) in 1922.  
(Australia) : Included with other chemicals in 1913, 3,025 cwt. (£5,634) in 1922.  
To Foreign Countries : Included with other chemicals in 1913, 10,611 cwt. (£15,431) in 1922.  
(Belgium) : Included with other chemicals in 1913, 2,686 cwt. (£2,384) in 1922.  
(France) : Included with other chemicals in 1913, 1,243 cwt. (£2,180) in 1922.



TABLE B 95

## EXPORTS OF UNDRESSED LEATHER, INCLUDING SOLE LEATHER

Total Exports : 140,166 cwt. (£1,243,583) in 1913, see B 96 to B 103 for 1922.  
 To Empire Countries : 22,570 cwt. (£189,248) in 1913, see B 96 to B 103 for 1922.  
 (*New Zealand*) : 4,312 cwt. (£42,905) in 1913, see B 96 to B 103 for 1922.  
 (*Canada*) : 9,329 cwt. (£67,711) in 1913, see B 96 to B 103 for 1922.  
 To Foreign Countries : 117,596 cwt. (£1,054,335) in 1913, see B 96 to B 103 for 1922.  
 (*Germany*) : 20,296 cwt. (£218,858) in 1913, see B 96 to B 103 for 1922.  
 (*France*) : 38,351 cwt. (£330,326) in 1913, see B 96 to B 103 for 1922.  
 (*United States*) : 33,668 cwt. (£268,920) in 1913, see B 96 to B 103 for 1922.

TABLE B 96

## EXPORTS OF SOLE LEATHER

Total Exports : Included in B 95 for 1913, 67,107 cwt. (£701,190) in 1922.  
 To Empire Countries : Included in B 95 for 1913, 9,118 cwt. (£119,835) in 1922.  
 (*New Zealand*) : Included in B 95 for 1913, 3,743 cwt. (£58,033) in 1922.  
 To Foreign Countries : Included in B 95 for 1913, 57,989 cwt. (£581,355) in 1922.  
 (*Russia*) : Included in B 95 for 1913, 6,080 cwt. (£66,857) in 1922.  
 (*Latvia*) : Included in B 95 for 1913, 797 cwt. (£4,574) in 1922.  
 (*Germany*) : Included in B 95 for 1913, 2,232 cwt. (£22,941) in 1922.  
 (*Netherlands*) : Included in B 95 for 1913, 1,532 cwt. (£12,077) in 1922.  
 (*Belgium*) : Included in B 95 for 1913, 1,565 cwt. (£14,709) in 1922.  
 (*France*) : Included in B 95 for 1913, 7,787 cwt. (£70,457) in 1922.  
 (*United States*) : Included in B 95 for 1913, 31,313 cwt. (£334,232) in 1922.

TABLE B 97

## EXPORTS OF UNDRESSED HIDE LEATHER, NOT INCLUDING KIP LEATHER

Total Exports : Included in B 95 for 1913, 49,536 cwt. (£474,473) in 1922.  
 To Empire Countries : Included in B 95 for 1913, 715 cwt. (£10,712) in 1922.  
 To Foreign Countries : Included in B 95 for 1913, 48,821 cwt. (£463,761) in 1922.  
 (*France*) : Included in B 95 for 1913, 37,738 cwt. (£353,195) in 1922.  
 (*United States*) : Included in B 95 for 1913, 8,040 cwt. (£75,170) in 1922.

# GREAT BRITAIN AND IRELAND

139

TABLE B 98

## EXPORTS OF UNDRESSED CALF LEATHER

Total Exports : Included in B 95 for 1913, 797 cwt. (£8,846) in 1922.  
 To Empire Countries : Included in B 95 for 1913, 47 cwt. (£758) in 1922.  
 To Foreign Countries : Included in B 95 for 1913, 750 cwt. (£8,088) in 1922.  
 (United States) : Included in B 95 for 1913, 606 cwt. (£5,411) in 1922.

TABLE B 99

## EXPORTS OF UNDRESSED KIP LEATHER

Total Exports : Included in B 95 in 1913, 4,364 cwt. (£32,806) in 1922.  
 To Empire Countries : Included in B 95 for 1913, 14 cwt. (£188) in 1922.  
 To Foreign Countries : Included in B 95 for 1913, 4,350 cwt. (£32,618) in 1922.  
 (United States) : Included in B 95 for 1913, 3,298 cwt. (£24,490) in 1922.

TABLE B 100

## EXPORTS OF UNDRESSED HIDE LEATHER NOT OTHERWISE SPECIFIED

Total Exports : Included in B 95 for 1913, 28,331 cwt. (£295,588) in 1922.  
 To Empire Countries : Included in B 95 for 1913, 3,158 cwt. (£44,295) in 1922.  
 (New Zealand) : Included in B 95 for 1913, 1,714 cwt. (£25,352) in 1922.  
 (Canada) : Included in B 95 for 1913, 453 cwt. (£6,135) in 1922.  
 To Foreign Countries : Included in B 95 for 1913, 25,173 cwt. (£251,293) in 1922.  
 (France) : Included in B 95 for 1913, 9,359 cwt. (£88,622) in 1922.  
 (United States) : Included in B 95 for 1913, 11,778 cwt. (£122,441) in 1922.

TABLE B 101

## EXPORTS OF UNDRESSED GOATSKIN LEATHER

Total Exports : Included in B 95 for 1913, 267 cwt. (£9,540) in 1922.  
 To Empire Countries : Included in B 95 for 1913, 12 cwt. (£359) in 1922.  
 To Foreign Countries : Included in B 95 for 1913, 255 cwt. (£9,181) in 1922.

TABLE B 102

## EXPORTS OF UNDRESSED SHEEP LEATHER (WHOLE OR SPLIT)

Total Exports : Included in B 95 for 1913, 11,557 cwt. (£187,713) in 1922.  
 To Empire Countries : Included in B 95 for 1913, 100 cwt. (£1,988) in 1922.  
 To Foreign Countries : Included in B 95 for 1913, 11,457 cwt. (£185,725) in 1922.  
 (Germany) : Included in B 95 for 1913, 6,966 cwt. (£107,343) in 1922.  
 (United States) : Included in B 95 for 1913, 849 cwt. (£11,227) in 1922.

## LEATHER, HIDES, AND SKINS

TABLE B 103

## EXPORTS OF UNDRESSED SKIN LEATHER, NOT OTHERWISE SPECIFIED

Total Exports : Included in B 95 for 1913, 1,728 cwt. (£25,056) in 1922.  
 To Empire Countries : Included in B 95 for 1913, 346 cwt. (£3,986) in 1922.  
 To Foreign Countries : Included in B 95 for 1913, 1,382 cwt. (£21,070) in 1922.

TABLE B 104

## EXPORTS OF PATENT AND JAPANNED LEATHER

Total Exports : 3,994 cwt. (£91,922) in 1913, 3,023 cwt. (£145,191) in 1922.  
 To Empire Countries : 1,088 cwt. (£22,002) in 1913, 756 cwt. (£34,101) in 1922.  
 (*British India*) : 400 cwt. (£9,552) in 1913, 216 cwt. (£8,477) in 1922.  
 (*Australia*) : 49 cwt. (£1,479) in 1913, 169 cwt. (£7,596) in 1922.  
 To Foreign Countries : 2,906 cwt. (£69,920) in 1913, 2,267 cwt. (£111,090) in 1922.  
 (*Belgium*) : 257 cwt. (£3,644) in 1913, 270 cwt. (£12,091) in 1922.  
 (*France*) : 993 cwt. (£24,628) in 1913, 780 cwt. (£34,091) in 1922.  
 (*Italy*) : 213 cwt. (£6,169) in 1913, 625 cwt. (£38,906) in 1922.

TABLE B 105

## EXPORTS OF BOX AND WILLOW CALF UPPER LEATHER

Total Exports : Included in B 110 for 1913, 10,894 cwt. (£244,605) in 1922.  
 To Empire Countries : Included in B 110 for 1913, 3,286 cwt. (£80,347) in 1922.  
 (*New Zealand*) : Included in B 110 for 1913, 395 cwt. (£22,103) in 1922.  
 (*Canada*) : Included in B 110 for 1913, 1,584 cwt. (£22,618) in 1922.  
 To Foreign Countries : Included in B 110 for 1913, 7,608 cwt. (£164,258) in 1922.  
 (*Belgium*) : Included in B 110 for 1913, 561 cwt. (£17,467) in 1922.  
 (*France*) : Included in B 110 for 1913, 2,935 cwt. (£70,005) in 1922.  
 (*Italy*) : Included in B 110 for 1913, 325 cwt. (£7,077) in 1922.  
 (*United States*) : Included in B 110 for 1913, 1,591 cwt. (£25,579) in 1922.

TABLE B 106

## EXPORTS OF GLACÉ KID UPPER LEATHER

Total Exports : Included in B 110 for 1913, 2,234 cwt. (£122,587) in 1922.  
 To Empire Countries : Included in B 110 for 1913, 912 cwt. (£50,314) in 1922.  
 (*Union of South Africa*) : Included in B 110 for 1913, 438 cwt. (£16,168) in 1922.  
 (*Australia*) : Included in B 110 for 1913, 55 cwt. (£4,039) in 1922.  
 (*New Zealand*) : Included in B 110 for 1913, 305 cwt. (£26,024) in 1922.  
 (*Canada*) : Included in B 110 for 1913, 65 cwt. (£1,791) in 1922.  
 To Foreign Countries : Included in B 110 for 1913, 1,320 cwt. (£72,273) in 1922.  
 (*France*) : Included in B 110 for 1913, 403 cwt. (£23,936) in 1922.

TABLE B 107

EXPORTS OF UPPER LEATHER, OTHER THAN BOX AND WILLOW CALF, GLACÉ  
KID AND PATENT

Total Exports : Included in B 110 for 1913, 26,063 cwt. (£545,852) in 1922.  
 To Empire Countries : Included in B 110 for 1913, 5,509 cwt. (£96,619) in 1922.  
 (*Cape of Good Hope*) : Included in B 110 for 1913, 866 cwt. (£21,982) in 1922.  
 (*British India*) : Included in B 110 for 1913, 61 cwt. (£2,217) in 1922.  
 (*New Zealand*) : Included in B 110 for 1913, 217 cwt. (£7,919) in 1922.  
 (*Canada*) : Included in B 110 for 1913, 3,707 cwt. (£51,825) in 1922.  
 To Foreign Countries : Included in B 110 for 1913, 20,554 cwt. (£449,233) in 1922.  
 (*Belgium*) : Included in B 110 for 1913, 1,535 cwt. (£22,781) in 1922.  
 (*France*) : Included in B 110 for 1913, 4,907 cwt. (£101,936) in 1922.  
 (*Switzerland*) : Included in B 110 for 1913, 2,750 cwt. (£46,882) in 1922.  
 (*Italy*) : Included in B 110 for 1913, 1,936 cwt. (£34,845) in 1922.  
 (*United States*) : Included in B 110 for 1913, 4,827 cwt. (£157,376) in 1922.

TABLE B 108

EXPORTS OF DRESSED HIDE, CALF, AND KIP LEATHER, OTHER THAN  
UPPER LEATHER

Total Exports : Included in B 110 for 1913, 3,857 cwt. (£100,757) in 1922.  
 To Empire Countries : Included in B 110 for 1913, 1,241 cwt. (£28,305) in 1922.  
 (*British India*) : Included in B 110 in 1913, 404 cwt. (£8,800) in 1922.  
 (*New Zealand*) : Included in B 110 for 1913, 123 cwt. (£3,470) in 1922.  
 (*Canada*) : Included in B 110 for 1913, 117 cwt. (£3,057) in 1922.  
 To Foreign Countries : Included in B 110 for 1913, 2,616 cwt. (£72,452) in 1922.  
 (*Germany*) : Included in B 110 for 1913, 106 cwt. (£1,801) in 1922.  
 (*France*) : Included in B 110 for 1913, 1,075 cwt. (£24,802) in 1922.  
 (*United States*) : Included in B 110 for 1913, 370 cwt. (£13,699) in 1922.

TABLE B 109

EXPORTS OF DRESSED SHEEP, GOAT, AND KID LEATHER, OTHER THAN  
UPPER LEATHER

Total Exports : Included in B 110 for 1913, 6,373 cwt. (£421,212) in 1922.  
 To Empire Countries : Included in B 110 for 1913, 1,094 cwt. (£96,637) in 1922.  
 (*Union of South Africa*) : Included in B 110 for 1913, 110 cwt. (£5,144) in 1922.  
 (*British India*) : Included in B 110 for 1913, 589 cwt. (£63,031) in 1922.  
 (*Australia*) : Included in B 110 for 1913, 120 cwt. (£7,998) in 1922.  
 (*Canada*) : Included in B 110 for 1913, 132 cwt. (£12,525) in 1922.

## LEATHER, HIDES, AND SKINS

To Foreign Countries : Included in B 110 for 1913, 5,279 cwt. (£334,575) in 1922.

(Germany) : Included in B 110 for 1913, 811 cwt. (£25,061) in 1922.

(Netherlands) : Included in B 110 for 1913, 764 cwt. (£40,570) in 1922.

(Belgium) : Included in B 110 for 1913, 424 cwt. (£21,803) in 1922.

(France) : Included in B 110 for 1913, 602 cwt. (£26,620) in 1922.

(Italy) : Included in B 110 for 1913, 223 cwt. (£11,801) in 1922.

(China) : Included in B 110 for 1913, 209 cwt. (£28,830) in 1922.

(Japan) : Included in B 110 for 1913, 255 cwt. (£31,853) in 1922.

(United States) : Included in B 110 for 1913, 682 cwt. (£73,211) in 1922.

TABLE B 110

EXPORTS OF DRESSED LEATHER, OTHER THAN PATENT AND JAPANNED, AND  
(FOR 1922) LEATHER SPECIFIED IN B 105 TO 109

Total Exports : 111,539 cwt. (£2,131,883) in 1913, 14,070 cwt. (£427,384) in 1922.  
To Empire Countries : 24,115 cwt. (£357,919) in 1913, 2,464 cwt. (£59,894) in 1922.

(Cape of Good Hope) : 3,363 cwt. (£39,490) in 1913, 451 cwt. (£13,022) in 1922.

(Natal) : 633 cwt. (£10,029) in 1913, 91 cwt. (£3,473) in 1922.

(Transvaal) : 1,691 cwt. (£17,419) in 1913, 171 cwt. (£3,697) in 1922.

(British India) : 3,020 cwt. (£72,913) in 1913, 290 cwt. (£8,317) in 1922.

(Australia) : 1,701 cwt. (£40,923) in 1913, 138 cwt. (£6,570) in 1922.

(New Zealand) : 2,589 cwt. (£41,735) in 1913, 301 cwt. (£5,701) in 1922.

(Canada) : 8,842 cwt. (£109,845) in 1913, 371 cwt. (£7,926) in 1922.

To Foreign Countries : 87,424 cwt. (£1,773,964) in 1913, 11,606 cwt. (£367,490) in 1922.

(Germany) : 12,677 cwt. (£327,192) in 1913, 82 cwt. (£3,053) in 1922.

(Netherlands) : 4,562 cwt. (£101,521) in 1913, 591 cwt. (£16,376) in 1922.

(Belgium) : 5,854 cwt. (£104,976) in 1913, 1,338 cwt. (£30,724) in 1922.

(France) : 35,854 cwt. (£626,756) in 1913, 3,155 cwt. (£102,298) in 1922.

(Switzerland) : 1,964 cwt. (£30,257) in 1913, 617 cwt. (£18,706) in 1922.

(Italy) : 2,384 cwt. (£46,793) in 1913, 389 cwt. (£15,180) in 1922.

(United States) : 8,009 cwt. (£168,692) in 1913, 3,590 cwt. (£128,362) in 1922.

TABLE B 111

EXPORTS OF LEATHER BOOTS AND SHOES

Total Exports : 1,452,815 doz. pairs (£4,194,276) in 1913, included in B 112 and 113 for 1922.

To Empire Countries : 1,044,849 doz. pairs (£2,633,861) in 1913, included in B 112 and 113 for 1922.

To Foreign Countries : 407,966 doz. pairs (£1,560,415) in 1913, included in B 112 and 113 for 1922.

TABLE B 112

EXPORTS OF MEN'S LEATHER BOOTS AND SHOES

Total Exports : Included in B 111 for 1913, 186,672 doz. pairs (£1,439,675) in 1922.  
 To Empire Countries : Included in B 111 for 1913, 119,732 doz. pairs (£873,320) in 1922.  
 To Foreign Countries : Included in B 111 for 1913, 66,940 doz. pairs (£557,355) in 1922.

TABLE B 113

EXPORTS OF WOMEN'S AND CHILDREN'S LEATHER BOOTS AND SHOES

Total Exports : Included in B 111 for 1913, 305,077 doz. pairs (£1,396,262) in 1922.  
 To Empire Countries : Included in B 111 for 1913, 225,956 doz. pairs (£1,047,168) in 1922.  
 To Foreign Countries : Included in B 111 for 1913, 79,121 doz. pairs (£348,094) in 1922.

TABLE B 114

EXPORTS OF LEATHER GLOVES

Total Exports : 229,237 doz. pairs (£369,936) in 1913, 32,075 doz. pairs (£134,708) in 1922.  
 To Empire Countries : 93,123 doz. pairs (£141,020) in 1913, 16,906 doz. pairs (£60,592) in 1922.  
 To Foreign Countries : 136,114 doz. pairs (£228,616) in 1913, 15,169 doz. pairs (£74,116) in 1922.

TABLE B 115

EXPORTS OF LEATHER BELTING

Total Exports : 48,903 cwt. (£683,034) in 1913, 16,873 cwt. (£519,830) in 1922.  
 To Empire Countries : 19,897 cwt. (£263,570) in 1913, 8,770 cwt. (£288,851) in 1922.

(British India)—

*Bombay* : 8,847 cwt. (£116,957) in 1913, 4,513 cwt. (£160,614) in 1922.  
*Madras* : 681 cwt. (£11,019) in 1913, 583 cwt. (£26,906) in 1922.  
*Bengal, etc.* : 4,747 cwt. (£57,056) in 1913, 1,222 cwt. (£33,011) in 1922.  
*Burma* : 435 cwt. (£4,362) in 1913, 117 cwt. (£2,923) in 1922.

(Canada) : 1,206 cwt. (£16,037) in 1913, 268 cwt. (£7,357) in 1922.

## LEATHER, HIDES, AND SKINS

To Foreign Countries : 29,006 cwt. (£419,464) in 1913, 8,103 cwt. (£230,979) in 1922.  
 (Poland) : Not known for 1913, 612 cwt. (£23,118) in 1922.  
 (Germany) : 1,819 cwt. (£25,341) in 1913, 209 cwt. (£5,014) in 1922.  
 (France) : 1,140 cwt. (£16,322) in 1913, 580 cwt. (£10,860) in 1922.  
 (China) : 1,381 cwt. (£17,151) in 1913, 1,793 cwt. (£60,191) in 1922.  
 (Brazil) : 2,175 cwt. (£33,133) in 1913, 371 cwt. (£12,024) in 1922.  
 (Argentine Republic) : 2,092 cwt. (£25,815) in 1913, 506 cwt. (£14,140) in 1922.

TABLE B 116

## EXPORTS OF WOVEN HAIR OR COTTON MACHINERY BELTING

Total Exports : 60,346 cwt. (£542,186) in 1913, 43,996 cwt. (£757,371) in 1922.  
 To Empire Countries : 28,171 cwt. (£244,691) in 1913, 20,034 cwt. (£355,795) in 1922.  
 To Foreign Countries : 32,175 cwt. (£297,495) in 1913, 23,962 cwt. (£401,576) in 1922.

TABLE B 117

## EXPORTS OF MACHINERY BELTING, OTHER THAN LEATHER AND WOVEN HAIR AND COTTON

Total Exports : 28,108 cwt. (£393,580) in 1913, 21,183 cwt. (£445,766) in 1922.  
 To Empire Countries : 11,719 cwt. (£173,205) in 1913, 7,050 cwt. (£159,249) in 1922.  
 To Foreign Countries : 16,389 cwt. (£220,375) in 1913, 14,133 cwt. (£286,517) in 1922.

TABLE B 118

## EXPORTS OF SADDLERY AND HARNESS

Total Exports : £445,459 in 1913, 11,427 cwt. (£183,461) in 1922.  
 To Empire Countries : £266,890 in 1913, 9,462 cwt. (£112,004) in 1922.  
 (Cape of Good Hope) : £44,896 in 1913, 544 cwt. (£8,250) in 1922.  
 (Natal) : £22,906 in 1913, 501 cwt. (£5,450) in 1922.  
 (Transvaal) : £17,827 in 1913, 374 cwt. (£4,019) in 1922.  
 (Australia) : £61,111 in 1913, 1,496 cwt. (£31,468) in 1922.  
 (New Zealand) : £26,376 in 1913, 195 cwt. (£3,860) in 1922.  
 (Canada) : £16,749 in 1913, 4,569 cwt. (£17,824) in 1922.  
 (British West India Islands) : £11,150 in 1913, 482 cwt. (£10,043) in 1922.  
 To Foreign Countries : £178,569 in 1913, 1,965 cwt. (£72,457) in 1922.  
 (United States) : £21,991 in 1913, 984 cwt. (£44,340) in 1922.

# GREAT BRITAIN AND IRELAND

145

TABLE B 119

## EXPORTS OF TRUNKS, BAGS, AND OTHER SOLID LEATHER GOODS

Total Exports : Included in B 123 for 1913, £136,134 in 1922.  
 To Empire Countries : Included in B 123 for 1913, £58,893 in 1922.  
 To Foreign Countries : Included in B 123 for 1913, £77,241 in 1922.  
 (*United States*) : Included in B 123 for 1913, £49,026 in 1922.

TABLE B 120

## EXPORTS OF FANCY LEATHER GOODS

Total Exports : Included in B 123 for 1913, £202,413 for 1922.  
 To Empire Countries : Included in B 123 for 1913, £111,020 for 1922.  
 (*Australia*) : Included in B 123 for 1913, £31,024 for 1922.  
 (*New Zealand*) : Included in B 123 for 1913, £17,319 for 1922.  
 (*Canada*) : Included in B 123 for 1913, £29,480 for 1922.  
 To Foreign Countries : Included in B 123 for 1913, £91,303 for 1922.  
 (*United States*) : Included in B 123 for 1913, £45,750 for 1922.

TABLE B 121

## EXPORTS OF FANCY ARTIFICIAL LEATHER GOODS

Total Exports : Included in B 123 for 1913, £7,241 for 1922.  
 To Empire Countries : Included in B 123 for 1913, £4,556 for 1922.  
 To Foreign Countries : Included in B 123 for 1913, £2,685 for 1922.

TABLE B 122

## EXPORTS OF LEATHER SPORTS GOODS

Total Exports : Included in B 123 for 1913, £106,304 for 1922.  
 To Empire Countries : Included in B 123 for 1913, £22,184 for 1922.  
 (*Canada*) : Included in B 123 for 1913, £7,967 for 1922.  
 To Foreign Countries : Included in B 123 for 1913, £84,120 for 1922.  
 (*France*) : Included in B 123 for 1913, £19,247 for 1922.  
 (*United States*) : Included in B 123 for 1913, £33,711 for 1922.

TABLE B 123

## EXPORTS OF LEATHER MANUFACTURES NOT OTHERWISE SPECIFIED

Total Exports : £682,759 for 1913, £210,180 for 1922.  
 To Empire Countries : £348,567 for 1913, £95,702 for 1922.  
 To Foreign Countries : £334,192 for 1913, £114,478 for 1922.  
 (*France*) : £48,455 for 1913, £28,246 for 1922.  
 (*United States*) : £63,324 for 1913, £15,850 for 1922.

The figures for 1913 contain those of articles which in 1922 are separately given in B 119 to B 122.



TABLE B 124

## UNITED KINGDOM

## MATERIALS (OTHER THAN TANNING MATERIALS) CONSUMED BY LEATHER PRODUCERS, 1917

	Tons.		Tons.
Sulphide of sodium . . . . .	2,900	Soap . . . . .	30
Bisulphite of soda . . . . .	1,000	Sulphonated oils . . . . .	2,500
Sodium hyposulphite . . . . .	2,700	Degras . . . . .	600
Bichromate of soda and potash . . . . .	1,200	Mineral oil . . . . .	2,750
Carbonate of soda . . . . .	100	Neatsfoot oil . . . . .	130
Chrome alum . . . . .	20	Egg yolk . . . . .	60
Repaired chrome liquor (15 per cent chrome oxide) . . . . .	1,600	Linseed oil . . . . .	200
Borax . . . . .	270	Cod oil . . . . .	7,600
Boric acid . . . . .	380	Sod oil . . . . .	130
Sulphuric acid . . . . .	2,200	Whale oil . . . . .	140
Hydrochloric acid } . . . . .	1,500	Castor oil . . . . .	130
Muriatic acid } . . . . .		Wool grease . . . . .	190
Formic acid . . . . .	50	Distilled olein . . . . .	90
Acetic acid . . . . .	290	Paraffin wax . . . . .	700
Lactic acid . . . . .	320	Stearine . . . . .	1,800
Sulphite of alum . . . . .	410	Refined currier's grease . . . . .	700
Casein . . . . .	10	Irish moss . . . . .	30
Arsenic (a) red . . . . .	30	Tallow . . . . .	1,600
" (b) yellow . . . . .	20	Logwood chips . . . . .	600
Carbolic (commercial) . . . . .	30	" extract . . . . .	450
Sulphur . . . . .	150	Nigrosine . . . . .	70
Ammonia (880) . . . . .	60	Redwood . . . . .	60
		Fustic . . . . .	40

TABLE B 125

## IRELAND

## EXPORTS IN 1913 AND 1919

Commodity.	Unit of Quantity.	Quantity.		Value £	
		1913	1919	1913	1919
Fat cattle . . . . .	No.	354,953	531,842	6,307,811	20,628,822
Store cattle . . . . .	"	623,495	194,781	7,741,730	5,361,347
Milch cows . . . . .	"	40,805	29,879	669,803	1,033,780
Other cattle . . . . .	"	37,226	68	479,414	2,327
Calves . . . . .	"	53,142	8,681	265,710	117,194
Fat sheep . . . . .	"	319,419	276,416	779,814	1,416,632
Store sheep . . . . .	"	—	499	—	2,071
Lambs . . . . .	"	339,836	230,230	492,762	702,202

TABLE B 125—(continued)

Commodity.	Unit of Quantity.	Quantity.		Value £	
		1913	1919	1913	1919
Feathers . . . . .	cwt.	20,324	17,869	42,680	83,389
Glue . . . . .	"	5,134	4,152	7,701	24,912
Hides and skins . . . .	"	237,042	208,374	735,416	1,359,590
Fleshings . . . . .	"	5,604	23,403	1,121	9,361
Leather . . . . .	"	6,055	11,070	54,495	221,400
Boots and shoes . . . .	"	3,801	4,305	40,148	148,415
Saddlery . . . . .	"	709	290	11,699	11,600
Clogs . . . . .	"	7	103	32	1,159
Horns and hoofs . . . .	"	475	3,134	809	7,835
Hair, curled . . . . .	"	5,383	5,646	30,145	57,872

TABLE B 126

## IRELAND

## IMPORTS IN 1913 AND 1919

Commodity.	Unit of Quantity.	Quantity.		Value £	
		1913	1919	1913	1919
Myrobalans . . . . .	cwt.	1,265	2,979	411	2,681
Sumach . . . . .	tons	26	25	325	625
Gambier . . . . .	"	8	25	180	1,375
Valonia . . . . .	"	143	12	1,359	360
Bark . . . . .	cwt.	3,825	1,052	1,530	1,157
Tanner's extract . . . .	"	14,965	10,393	8,231	18,188
Dyes and tanning sub- stances, unclassified . .	"	26,285	17,274	13,800	20,297
Glue . . . . .	"	10,456	9,581	15,684	57,486
Hides and skins . . . .	"	5,934	8,867	27,077	77,324
Fleshings . . . . .	"	23,143	902	4,629	361
Leather . . . . .	"	71,986	71,137	565,090	1,067,955
Boots and shoes . . . .	"	158,485	156,066	1,673,998	5,380,375
Saddlery . . . . .	"	5,002	2,929	82,533	108,373
Belting . . . . .	"	1,298	935	20,768	30,855
Clogs . . . . .	"	1,023	2,446	4,604	27,518
Horns and hoofs . . . .	"	173	159	295	398
Hair, curled . . . . .	"	7,815	10,019	43,764	102,695

## APPENDIX

### BIBLIOGRAPHY

#### TRADE PAPERS

- LEATHER TRADES REVIEW. 24 Mark Lane, E.C. 3.  
LEATHER WORLD. 177 Bermondsey Street, S.E. 1.  
SHOE AND LEATHER RECORD. 23-28 Fleet Street, E.C. 2.  
SHOE AND LEATHER NEWS. Spencer House, South Place, Finsbury, E.C. 2.  
SHOE TRADES JOURNAL. 64 London Road, Leicester.  
FOOTWEAR ORGANISER. Regent House, Kingsway, W.C. 2.

#### OFFICIAL PUBLICATIONS

- AGRICULTURAL MARKET REPORT. Published weekly by the Ministry of Agriculture and Fisheries.  
AGRICULTURAL STATISTICS. Part I, III. Published annually by the Ministry of Agriculture and Fisheries.  
AGRICULTURE REPORT OF ENGLAND AND WALES. Preliminary statements. Published annually by the Ministry of Agriculture and Fisheries.  
SCOTTISH JOURNAL OF AGRICULTURE. Published quarterly by the Board of Agriculture, Scotland.  
AGRICULTURE STATISTICS FOR SCOTLAND. Part I, III. Published annually by the Board of Agriculture, Scotland.  
ANNUAL REPORT OF THE CHIEF INSPECTOR OF FACTORIES AND WORKSHOPS. Published annually by the Home Office.  
MINISTRY OF LABOUR GAZETTE. Published monthly by the Ministry of Labour.  
BOARD OF TRADE JOURNAL AND COMMERCIAL GAZETTE. Published weekly by the Board of Trade.  
TRADE AND NAVIGATION OF THE UNITED KINGDOM for each month. Published monthly by the Board of Trade.  
ANNUAL STATEMENT OF THE TRADE OF THE UNITED KINGDOM WITH FOREIGN COUNTRIES AND BRITISH POSSESSIONS. Vols. II, III, IV. Published annually by the Board of Trade.  
STATISTICAL ABSTRACT FOR THE UNITED KINGDOM. Published by the Board of Trade.  
REPORT OF THE CENSUS OF PRODUCTION, 1907. Published by the Board of Trade.

#### WARBLE FLY

- A. D. IMMS. On the life history of the Ox Warble Flies. *Journ. Econ. Biol.*, 1906.  
C. WARBURTON. Annual Report for 1916 of the *Zoologist*. *Journ. R. Agric. Soc.* LXXVII. 1916.  
THE WARBLE FLIES OF CATTLE. *Hypoderma bovis* and *H. lineatum*. *Parasitology*. XIV. 1922.

- H. GLASER AND OTHERS. Über Dasselfliegen, u.s.w. *Mitt. des Ausschusses zur Bekämpfung der Dasselfpöge*. Nos. 1-6. 1912-14.
- PETER. Durchbruch der Hypodermenlarven des Rindes durch die Haut. *Berlin Tierarztl. Wöchenschr.* 1912. No. 25.
- C. STUB. Penetration of Hypoderma Larvæ into Cattle Hides. *Maanedsskrift f. Dyrlaeger*. XXXI. 1920 (Copenhagen).
- G. H. CARPENTER AND F. G. S. POLLARD. The Presence of Lateral Spiracles in the Larva of Hypoderma. *Proc. Irish Acad.* XXXIV. B. 1918.
- G. H. CARPENTER, G. PHIBBS, AND T. SLATTERY. The Warble Flies (6th Report). *Journ. Dept. Agric. Ireland*. XXXI. 1922. No. 1.
- SEYMOUR HADWEN. Anaphylaxis in Cattle. *Journ. Amer. Vet. Med. Assoc.* LI. 1917.
- INSECTS AFFECTING LIVE STOCK. *Canad. Dept. Agric. Bull.*, 29 (n.s.). 1923.
- G. PHIBBS. The Larval Mouth-hooks of Hypoderma. *Irish Naturalist*. XXXI. 1922.
- J. GEDOELST. Le Trimorphisme Larvaire des Cestrides. *C. R. Soc. Belge*. LXXXVI. 1922. pp. 501-3.
- TWO ARTICLES IN THE "LEATHER TRADES YEAR BOOK" ON WARBLE. 1921 and 1922.

## OTHER PUBLICATIONS

- DEVELOPMENT OF CHROME TANNING. *Tanners' Year Book*. 1910.
- BRITISH CURRYING INDUSTRY. *Tanners' Year Book*. 1923.
- BRITISH FELLMONGERING. *Tanners' Year Book*. 1913.
- HAT LEATHER MANUFACTURE. *Tanners' Year Book*.
- HOW HAT LEATHER IS MADE. *The Hatter*. May, 1923.
- TANNING AND LEATHER TRADE IN IRELAND. *Tanners' Year Book*. 1911.
- ROLLER LEATHER. *Tanners' Year Book*. 1922.
- SYNTHETIC TANNING. *Tanners' Year Book*. 1922.
- WELSH HIDES AND SKINS. Article by Mr. Seymour Jones, *Times Welsh Trade Supplement*. 1922-23.
- DEVELOPMENT OF UPPER LEATHER INDUSTRY. *Tanners' Year Book*. 1910.
- THE SHEEP AND ITS SKIN. A. Seymour Jones. (See extended bibliography in this book regarding conditions relating to sheepskins.)
- JOURNAL OF SOCIETY OF LEATHER TRADES' CHEMISTS. (See specially abstracts and reports of literature and publications as published.)
- MARKET REPORTS. Weekly and monthly by many firms in London and Liverpool.

## ANTHRAX

- ANTHRAX. Reports of Departmental Committee appointed by Home Office and International Commission appointed by the International Labour Office.
- ANNUAL REPORT OF THE CHIEF INSPECTOR OF FACTORIES AND WORKSHOPS REGARDING ANTHRAX AND CHROME POISONING.
- DR. H. LEYMAN. *Anthrax in the Tannery Industry*.
- LEATHER TRADES YEAR BOOK (Published annually).
- YEAR BOOK OF THE BOOT MANUFACTURERS' FEDERATION.

## TRADE ASSOCIATIONS

(See after end of Section H)



SECTION C  
INDIA

## LIST OF TABLES IN SECTION C

TABLE NO.		PAGE
C 1.	NUMBER OF CATTLE, SHEEP, AND GOATS, ETC., IN BRITISH INDIA AND INDIAN STATES . . . . .	168
C 2.	RAW HIDES AND SKINS, EXPORTS . . . . .	169
C 3.	RAW COW-HIDES, EXPORTS . . . . .	169
C 4.	RAW BUFFALO-HIDES, EXPORTS . . . . .	170
C 5.	COW CALFSKINS, EXPORTS . . . . .	170
C 6.	BUFFALO CALFSKINS, EXPORTS . . . . .	170
C 7.	CALFSKINS, TOTAL FIGURES, EXPORTS . . . . .	171
C 8.	RAW GOATSKINS, EXPORTS . . . . .	171
C 9.	RAW SHEEPSKINS, EXPORTS . . . . .	172
C 10.	MYROBALANS, EXPORTS . . . . .	172
C 11.	MYROBALAN EXTRACT, EXPORTS . . . . .	173
C 12.	DYEING AND TANNING SUBSTANCES, EXPORTS . . . . .	173
C 13.	CUTCH AND GAMBIER, EXPORTS . . . . .	173
C 14.	TANNING BARKS, EXPORTS . . . . .	174
C 15.	LEATHER, TOTAL VALUE, EXPORTS . . . . .	174
C 16.	TANNED COW-HIDES, EXPORTS . . . . .	175
C 17.	TANNED BUFFALO-HIDES, EXPORTS . . . . .	175
C 18.	TANNED GOATSKINS, EXPORTS . . . . .	175
C 19.	TANNED SHEEPSKINS, EXPORTS . . . . .	176
C 20.	TANNED COW CALFSKINS, EXPORTS . . . . .	176
C 21.	TANNED BUFFALO CALFSKINS, EXPORTS . . . . .	177
C 22.	UNWROUGHT LEATHER, EXPORTS . . . . .	177
C 23.	BOOTS AND SHOES, EXPORTS . . . . .	177
C 24.	RAW HIDES, IMPORTS . . . . .	178
C 25.	RAW SKINS, IMPORTS . . . . .	178
C 26.	TANNING BARK, IMPORTS . . . . .	179
C 27.	CUTCH AND GAMBIER, IMPORTS . . . . .	179
C 28.	LEATHER, TOTAL VALUE, IMPORTS . . . . .	179
C 29.	TANNED HIDES, IMPORTS . . . . .	180
C 30.	TANNED SKINS, IMPORTS . . . . .	180
C 31.	UNWROUGHT LEATHER, IMPORTS . . . . .	181
C 32.	ROLLER SKINS, IMPORTS . . . . .	181
C 33.	PICKING BANDS, IMPORTS . . . . .	181
C 34.	PICKERS, IMPORTS . . . . .	181
C 35.	LEATHER BOOTS AND SHOES, IMPORTS . . . . .	182
C 36.	LEATHER BELTING, IMPORTS . . . . .	182
C 37.	SADDLERY AND HARNESS, IMPORTS . . . . .	182
C 38.	BAGS AND TRUNKS, IMPORTS . . . . .	183
C 39.	LEATHER MANUFACTURES, IMPORTS . . . . .	183
C 40.	IMPORTS OF GOATSKINS INTO UNITED STATES . . . . .	183

## SECTION C

### INDIA

INDIA is under normal circumstances the most important country in the British Empire for the production of hides, skins, and tanning materials. This Section will deal with the various classes of her output under the following main heads: (1) raw hides; (2) raw skins; (3) tanning materials; (4) tanned hides; and (5) tanned skins; but before dealing with these in detail a general summary may be given.

Although in all the detailed tables to be referred to in this Section it will be necessary to deal with the Indian fiscal year (which ends on March 31st), it is also possible to use figures for the calendar years 1921 and 1922, and thus readily to make a satisfactory comparison with figures for certain other countries of the Empire. The export trade in Indian hides, skins, tanning materials and leather may be summarised as follows:—

	1913-1914	Value Rs. (000) 1921	1922
Raw hides . . . .	82,960	16,943	20,835
„ skins . . . .	33,904	33,640	36,749
Tanning materials . .	6,784	6,917	10,005
Tanned hides and skins .	42,502	34,551	46,911
Total . . . .	166,150	92,051	114,500

For the purpose of comparing with the corresponding output of other Empire countries, it is necessary to convert the rupee values to sterling. This presents no difficulty for 1913-14, where we can take 15 rupees to the £ as an accurate rate of exchange. The average of weekly rupee quotations for 1921 and 1922 were rs. 4½d. and rs. 3½d. respectively. It does not necessarily follow, however, that, in view of the fluctuations throughout these years, these are the appropriate rates of exchange for determining the sterling value of India's foreign trade, and a likely alternative method<sup>1</sup> was tried, but did not lead to useful results. In view of an anomaly brought out by this alternative method the results it gives are referred to, but for approximate purposes we are not far from the truth in taking 15 rupees to the £ for 1921 and 1922 as well as 1913.

The sterling value of India's exports were, accordingly, £11,000,000 in 1913-14, £6,100,000 in 1921, and £7,600,000 in 1922.

<sup>1</sup> The method referred to is to compare the export value per cwt. in rupees of certain items from India to the United Kingdom, with the corresponding import values per cwt. in £ of the same items into the United Kingdom from India. Allowances are necessary, however, for the fact that the Indian export value is f.o.b., while the import value for the United Kingdom is c.i.f. There is



## RAW HIDES

Table C 1 shows the comparison of the number of cattle in 1913-14 and in 1920-21 respectively, both for British India and the Native Indian States. The total number returned in the Census for 1913-14 was 157,000,000 and in the later one 178,000,000. The increase was almost entirely in the figures for the Indian States, which rose from 14,000,000 to 33,400,000, but it is probable that the increase is more indicative of defective returns at the earlier date than of real increase in numbers. At the later date 23,700,000 of the animals were returned as buffaloes, a distinction of importance to the leather industry, since it is not possible to obtain the same quality of leather from a buffalo-hide as from a bullock- or cow-hide. The Indian Industries Commission estimated that the true number of cattle in the country exceeded 180,000,000, and this estimate was accepted by the Indian Munitions Board in 1918 in its valuable *Review of the Trade in Indian Hides, Skins, and Leather*. No statistics are available of the number of cattle slaughtered per annum in India.

The *Review* expressed the opinion that 50 per cent of the hides which were available each year were exported in the raw state. Accepting this opinion, it would appear that the remaining 50 per cent were divided as to 10 per cent exported in the rough-tanned state and 40 per cent consumed in India.

Table C 2 shows the exports, by numbers, of hides from India in 1920-21 and 1921-22 in comparison with 1913-14. The post-War years referred to covered a period of very acute depression in Indian trade. The total exports, which were 11,750,000 hides in 1913-14, were down to 4,200,000 in 1920-21 and 6,100,000 in 1921-22. The figures for buffalo hides, included in these totals, were 1,970,000 in 1913-14, 350,000 in 1920-21, and 260,000 in 1921-22. The *Review* showed in detail (by weight) the exports of raw hides from India each year from 1880-81 till the outbreak of War. Between 1880 and 1914 the annual exports of these hides doubled, and it is of considerable interest to compare the yearly figures with the figures given on page 52 of Section B,

also, of course, the lag in time between export from India and import into United Kingdom to be borne in mind.

The comparisons made are as follows:—

	1921		1922	
	Export value from India to U.K. rupees per cwt.	Import value into U.K. from India £ per cwt.	Export value from India to U.K. rupees per cwt.	Import value into U.K. from India £ per cwt.
Raw hides . . . . .	36.2	4.48	33.0	3.99
Myrobalars . . . . .	4.99	371	5.04	365
Tanned hides . . . . .	112.0	7.71	117.0	7.41
„ goatskins . . . . .	34.7	2.25	36.0	2.11
„ sheepskins . . . . .	31.2	2.15	28.4	2.10

For 1921 the last four-named articles lead to the relationship between the £ and the rupee of 13.5, 14.5, 15.4, and 14.5 rupees to the £ respectively, but the figures for raw hides led to the very anomalous value of 8.1 rupees to the £. For 1922 the corresponding figures for the last four articles are 13.8, 15.8, 17.1, and 13.5 respectively, but again there is an anomalous value, viz. 8.3—reached in the case of the figures of raw hides.

tracing the course of hide prices over the same period of years. Although the prices referred to English hides, the general course may be assumed to hold approximately also for other classes of hides. The exports of hides from India were at their lowest (in quantity) in 1889-94. Prices were at their lowest in 1893-94. From 1894 onwards exports of hides increased (with fluctuation) at a considerable rate and doubled in about twenty years, during a period in which prices were steadily rising. Though the hide is a by-product, and accordingly the value of the hide exercises no influence on the number of cattle, nevertheless high prices cause hides to come forward from remote areas in such countries as India which would not, were it not for the increase in price, become available.

Table C 3 shows in full detail the exports of raw cow-hides ("East India kips") for 1913-14, 1920-21, and 1921-22. In the first period named 83 per cent went direct to foreign countries, and in the last one 90 per cent. Some of the hides coming to England were also transhipped to foreign countries. The biggest consumers, in the order named, in the pre-War period were Germany, Austria-Hungary, Italy, United States, and Spain. Germany commenced buying again in 1920, and in 1921-22 was again the biggest user, being followed by Italy and Spain. The table in the *Review* previously referred to traces the development of Germany's purchases of these hides and the corresponding diminution in the imports of the United Kingdom. The vegetable tanning of Indian kips was at one time a very important industry in England, particularly at Leeds. The development of chrome tanning, however, produced a remarkable change, the consumption of Germany and Austria increasing year by year until in 1913-14 these two countries between them took more than 50 per cent of the total exports. As described by the *Review* this trade was deliberately fostered by the German Government's fiscal policy, which, while allowing imports of raw hides free, progressively increased the duty on imported leather. This duty in 1876 was about 6 per cent *ad valorem*. Three years later it was increased to 10 per cent, while in 1906 a specific duty was imposed, which in actual operation varied from 1½d. to 2½d. per lb. Such a duty afforded complete protection to the home-produced article. Special encouragement, too, was given to the direct shipment of hides to Hamburg, and the control of Germany over the trade was consolidated by the combination of the seven principal exporting firms, all of which were either German or under German influence. A substantial proportion of the leather manufactured from these hides in Germany came to this country as imitation box calf or for soles for light boots and shoes.

The question of the recovery of this trade was one to which most serious attention was given during the War, and a committee appointed by the Imperial Institute, including tanners, shippers of hides, and representatives of the War Office, considered the steps which might be taken in order to prevent the loss of trade. The only one of the recommendations of this committee to which practical effect could be given was that of the imposition of a duty on the export of hides from India, with a preference (in the shape of a remission of a portion of the duty) in favour of all hides tanned within the Empire. This duty was

first imposed in 1920, and for some time was undoubtedly instrumental in developing the tanning of Indian hides in that country. The unprecedented slump which, starting in 1920, afflicted the tanning industry until 1923, prevented full use being made of the assistance afforded by the duty. The Indian hide and skin industry was seriously affected by the slump—the value of the annual exports in 1920–22 was less than one-quarter of that of 1913–14—and on the grounds of economy in administration and of the urgency of removing every obstacle considered to be detrimental to Indian commerce, the export duty was as a whole reduced (to 5 per cent *ad valorem*) and the preference afforded in the case of skins tanned within the Empire entirely removed. The duty, as actually imposed, is not strictly on an *ad valorem* basis, but a schedule is adopted, and modified from time to time as prices change, which, while expressing the duty per hide, affords approximately the same return as an *ad valorem* duty would produce. The schedule in operation at the end of 1923 is shown in Appendix C 1.

Particulars of the exports of raw buffalo hides are set out in Table C 4. In 1913–14 these amounted in value to more than one-third of the corresponding kips exported, but in 1921–22 the proportion was less than 8 per cent. In 1913–14, 90 per cent of these buffalo hides went to foreign countries, but in 1921–22 the proportion was only 50 per cent. Germany, before the War, did not take very large quantities of these buffalo hides, the chief users being the United States and Austria.

The export of raw calfskins is small in comparison with that of buffalo- and cow-hides. Details are available separately for cow calfskins and for buffalo calfskins, and are set out in Tables C 5 and 6. About 20 per cent of these exports come to this country, but Spain and Italy are the chief users.

The great bulk of Indian hides are exported in the dry and dry-salted state or are arsenicated, a small proportion only (from Burma) being exported as wet-salted hides. Dry-salted hides come principally from the damp regions in the north-east of India, where they are prepared all the year round. Dacca is the principal hide centre in Eastern Bengal, but the hides from this area are frequently heavily adulterated.

Arsenicated hides—that is, air-dried hides preserved by dipping in solution of arsenic—come from the North-West and the drier parts of India.

A description of the classification, mode of preparation, etc., of Indian hides and skins has been reprinted in pamphlet form by the Indian Trade Commissioner from two articles published in *Capital* in August and September, 1918. The deficiencies of Indian hides in the world's markets cannot be described better than in the words of the *Review* as follows :—

“ The Indian hides trade suffers greatly from the careless and inefficient manner in which the majority of raw hides are collected and preserved. A specially undesirable feature of the trade is the deliberate overloading of dry-salted hides with dirt and cement and other substances on the flesh side in order artificially to increase the weight. A good deal of improvement had been effected before the War by the combination of the Calcutta

exporting firms, but the position became worse after the War when there was a great deal of indiscriminate buying without regard to the cure. When Government became a purchaser they did their best to effect an improvement in this matter, but with little result, so that they were eventually driven to make the announcement that they would refuse to purchase any dry-salted hides which were not properly cured. The 'real Meherpore' cure was taken as the standard. This should in time lead to a real improvement in the cure, but immediate improvement was prevented by the continuance of indiscriminate purchases by Indian tanners. In the end the Government Committee has had to undertake the entire responsibility of purchases for Madras tanners in the Calcutta market."

Two other ways in which much valuable leather is lost to India are by the faulty method of flaying and the branding of cattle. The Indian Munitions Board has devoted much attention to attempts to improve matters in these respects. The attention of local governments and the public was early directed to these questions in a Press notice, and a pamphlet in simple language was subsequently prepared by the Director of Industries in Bengal which gave instructions as to the proper method of flaying and of preparing wet-salted, dry-salted, and air-dried hides. This pamphlet has been widely circulated through local governments to district officers and local bodies and to the Civil Veterinary Departments, and has been translated into a number of vernaculars. Direct action has also been taken in certain places to give instruction to chamars in the proper flaying and preservation of hides, and in several slaughter-houses, e.g. at Rangoon, local rules have been passed by which the flaying of cattle is now properly supervised. As an instance of what can be effected by proper management, reference may be made to the Bandra slaughter-house at Bombay, where control has been exercised directly by the Deputy-Controller, Hides, Bombay. By obtaining more time for the butchers to do their work properly and by paying a small premium for all well-flayed hides, the proportion of hides from this slaughter-house rendered unsuitable for Army work by faulty flaying has been reduced from about 60 per cent to less than 5 per cent. The Esociet Company of Maihar in Central India also reports excellent results in the improved condition of hides collected in the Indian States with which the company is associated. The improvement has been effected by securing to the chamars very high prices for well-preserved hides and very low prices for faultily preserved hides. Improvement in a matter of this kind in a country such as India is necessarily slow, but a beginning has at any rate been made.

The branding of cattle is a more difficult matter to deal with as it is bound up in some areas with the religious ideas and prejudices of the people. In some provinces, such as Burma, the practice is hardly known; in others it is very common, and in Ceylon it is said to be almost universal. Nearly all the Ceylon hides tendered to the Government in Madras have been ruined by branding. Where branding is necessary for purposes of identification, a small brand on the forehead or on the shank or even on the horn or hoof should be sufficient.

## GOATSKINS

Table C 2 shows the figures of exports of goatskins from India by number. In 1913-14 the annual export was 19,700,000. In 1920-21 it was 11,250,000 and by 1921-22 it had increased to 23,800,000. Table C 8 shows in detail the exports to different countries. About 90 per cent are exported direct to foreign countries, while a portion of those coming in the first instance to this country are subsequently reshipped to other countries. The United States takes 78 per cent of the total exports. The exports of goatskins from India multiplied more than twelvefold in the twenty-five years preceding the War. This enormous peculiarly development arose through the invention of chrome tanning, which was adapted for use to goatskins. The Tables on page 18 in the first Section of this book show that India possesses nearly one-third of the goats of the world. The best form for indicating the position of India as a supplier of goatskins in comparison with other countries is by means of the figures showing the imports of skins into the United States, which country is by far the biggest consumer of goatskins. These are set out in detail in Table C 40. Out of a total of 43,380,000 skins imported, not less than 21,600,000, or nearly 50 per cent, came from India, China being next with 10,900,000, followed by Brazil with 4,100,000. The goatskins exported from India annually are sufficient to supply the upper leather for a pair of boots or shoes to each man, woman, and child in Great Britain.

The whole of the goatskins shipped from the North of India are in the raw state, either as dry-salted or wet-salted. A big percentage of the skins shipped from Bombay are also in the raw state, but an appreciable proportion from this neighbourhood are rough-tanned and exported to London for disposal through the public sales held every two months. The skins from the north are usually handled in the tabular form, that is the animal is flayed by having its skin drawn over the head, instead of being cut along the belly. They are sold under the name of the particular district from which they come, such as Amritsar or Patna, either by linear measurement or by weight per 100 skins. The finest grade of goatskins come from the Madras district, but the flaying of these is frequently bad. At one time a bigger proportion were tanned locally than at present. Many varieties are recognised coming from this district, but they can be generally divided into two main descriptions, (1) Northern, which include Coconadas and Bezwas, and (2) Southern, from the hilly district in Bengal. The southern are the better value; they have a better grain and a somewhat finer substance than the skins from the more low-lying districts. The *Review* described the trade in raw skins as follows:—

“ Unlike Indian hides, Indian skins are mostly obtained from animals which have been slaughtered for food. They are therefore relatively much superior in quality to Indian hides. For export purposes Indian skins are mostly dry-salted with the hair on, but sometimes they are flint-dried and occasionally wet-salted in the hair or un-haired and then pickled in a solution of alum and salt. Each firm has its own standard for sorting

into firsts, seconds, etc. The more important varieties of goatskins are distinguished by the names of the areas from which they come. The following are among the principal varieties: Daccas, Dinajpores, Durbangas, Mozaffarpores, North-Westerns, Amritsars. The last-named is a trade term for the large-sized goatskins from this and other Punjab districts. North-Westerns are also large skins, giving from 80 to 120 feet of leather per dozen. Skins from Bombay, Madras, Hyderabad, and the Deccan are mainly used by the Madras and Bombay tanneries."

Reference should here be made to the subject of anthrax in connection with hides and skins. British official statistics show that an appreciable proportion of the cases of anthrax caused by hides or skins in Great Britain come from Indian hides and skins.

India's chief interest in anthrax arises through its connection with goat hair, which, on importation into this country, requires to go through a disinfecting process. The Indian Government hold the view that so far as regards hides and skins the solution of the problem lies rather in regulating tanners using hides and skins than in expensive methods of disinfecting at the port of shipment or of arrival. They are nevertheless considering the problem at the producer's end, and are developing an arrangement by which at the time of shipment a certificate would be given by some authority indicating the districts from which the hides or skins originally came. They contemplate subsequently the possibility of getting a certificate from the districts in question indicating whether or not it is free from anthrax. The view of the Indian Government is that until a Convention on the subject of anthrax has been accepted by the League of Nations, who, as mentioned in Section B, have the subject under consideration, they should not be called upon to take further action.

#### SHEEPSKINS

The export of raw sheepskins from India is comparatively small, being in 1921-22 only 3 per cent in value of the exports of raw hides and less than 1½ per cent of the exports of raw goatskins. Table C 2 shows the numbers exported, the 1913-14 figure of 2,400,000 being reduced to 1,600,000 in 1920-21 and to 600,000 in 1921-22. Table C 9 gives the details of exports to various countries. Before the War 94 per cent went to foreign countries (nearly 90 per cent to the United States) and in 1921-22, 88 per cent.

The number of sheep in the North of India is small in comparison with the number of goats. In the south, however, the quantities of the two varieties of skins produced are nearly equal, but a much bigger proportion of the sheepskins are tanned. The quality of the sheep improves progressively from north to south, and, as in the case of goats, the best come from the hilly districts of Dindigul, Trichinopoly, and Coimbatore. The sheep in these districts are known as red-hair sheep, and the wool or hair is of very little value. The high prices realised for wool during the last few years has tended to introduce a class of sheep into these districts whose wool would be of more value, with

the result that present-day pelts are much more mixed in character and no longer as true to type as they used to be.

#### TANNING MATERIALS

By far the most important of India's tanning materials is myrobalans. The details of exports are given in Table C 10. The total exports in 1913-14 and in 1921-22 were almost exactly the same both in quantity—62,000 tons—and in rupee value—5,750,000 rupees. Among Empire tanning materials myrobalans are now second to wattle bark from South Africa. Sixty per cent of the exports in 1913-14 went to foreign countries, and 67 per cent in 1921-22, the United Kingdom, Germany, and the United States being the most important consumers, followed by Belgium, France, Australia, and Holland. In addition, in recent years, some myrobalan extract has been exported, amounting in value to about 8 per cent of the crude myrobalans in 1921-22. Most of this extract came to the United Kingdom.

The best account of the trade in Indian myrobalans is that contained in the Report of the Special Committee of Tanners and Shippers on Hides and Tanning Materials appointed during the War by the Imperial Institute and presided over by Professor Wyndham Dunstan, and special reference should be made to the report published by the Imperial Institute in 1922 for a comprehensive view of the whole trade. The only side of the question which need be mentioned here is that of the trade varieties used, on which subject the report states "there are five principal varieties of myrobalans recognised in commerce, and usually two grades in each variety. The varieties which are named after the districts in India from which the fruits are obtained are as follows: 'Bimlies' or 'B's' from Bimlipatam in Madras; 'Jubbelpores' or 'J's' from Jubbulpore in the Central Provinces (obtained partly from British territory and partly from the Native State of Rewah); 'Rajpores' or 'R's' from the Kohlapur State; 'Vingorlas' or 'V's' from the Bombay forests; and 'Coast Madras.' Each of these different varieties is usually separated into two grades known as No. 1 and No. 2."

The other tanning materials exported from India are cutch and divi-divi. The former comes from Burma, but is used principally for tanning nets. Divi-divi, an exotic plant, has been successfully grown in Madras, and small quantities are exported. Burma also has large mangrove forests, the varieties in some of which are similar to the Madagascar mangrove, which is used to a fairly large extent for tanning. Attempts have been made to use this Burma mangrove for the production of a tanning extract, but so far with little success.

A tanning material of which practically none is exported but very large quantities used in India is avarum or turwad. It was estimated that the consumption of this in the tanneries making war leathers was 80,000 maunds per month, equivalent to 12,000 tons per year. A great deal has been written on Indian tanning materials by Mr. J. A. Pilgrim and others in papers referred to in the Bibliography, and special reference may be made in particular to

*Bulletin No. 1* of the Government Tannin Research Factory, and to the paragraphs on tanning materials in the *Review of Indian Trade in Hides, Skins, and Leather*. Summary figures of the exports of Indian dyeing and tanning substances are given in Table C 12, while details of countries of destination for (a) cutch and gambier, and (b) tanning barks, are given in Tables C 13 and C 14 respectively. Before the War nearly two-thirds of the cutch exported came to this country, but the post-War figures are smaller. The bulk of the bark exported goes to Ceylon.

#### LEATHER

The leather exported from India consists almost entirely of rough-tanned hides, rough-tanned goatskins, and rough-tanned sheepskins requiring further treatment before use. Table C 15 shows the details (by value) of the exports to various countries in the three years previously mentioned. The rupee value of the total exports was 42,500,000 in 1913-14 and 40,300,000 in 1921-22; the former figure was equivalent to £2,600,000. Nearly 90 per cent in the first-named period and over 70 per cent in the last-named came to the United Kingdom. As pointed out in the previous Section, however, substantial quantities of the rough-tanned goat- and sheepskins coming to London are subsequently re-exported. Japan in 1921-22 took 11 per cent of the exports, as against 3 per cent before the War.

#### TANNED HIDES

The exports of tanned cow-hides are shown in detail in Table C 16 and of tanned buffalo-hides in C 17. Although many countries are mentioned in the tables, the only one taking substantial quantities is the United Kingdom (with the exception that in 1921-22, 12 per cent of the exports were shipped to Hong-Kong). The buffalo-hides exported amount in quantity to about 10 per cent of the cow-hides, but only 6 per cent of the value.

These tanned hides, by the trade name of "E.I. Tanned Kips," are the raw material for important industries in Northampton, Leeds, and other parts of Great Britain, the leather being curried and dressed for boot upper leather, laces, bags, etc. During the War this material was of paramount importance for the manufacture of upper leather for Army boots, the majority of the boots which were manufactured for the Allied Armies having uppers of Indian tanned kips. The development of chrome tanning had serious effects on the currying of vegetable-tanned upper leather, but there is still a substantial trade in this leather for the heavier class of working-man's boot.

With the exception of a large tannery and leather works in Cawnpore and a tannery in Madras run on European lines, most of the Indian tanneries are situated in the south, some in the Bombay district, but most in the Madras Presidency. There is also a large chrome tannery at Pallavaram, employing in 1919 about 1000 hands. The Madras tanneries, from the European point of view, are small concerns, and hand labour is the only kind employed.



Probably the chief reason for the existence of these tanneries is the fact of the exceedingly large supplies of turwad bark, which grows wild in the jungle of the neighbourhood. Official statistics show that the number of tanneries in Madras were as follows :—

	No. of tanneries.	Average No. of labourers employed daily.
Hide tanneries . . .	204	5,307
Skin       " . . .	132	4,948
Mixed       " . . .	114	3,968
	450	14,223

Practically all the tanned hides shipped from India are exported from Bombay and Madras, the latter port being by far the most important in the trade. There is not very much difference in the quality shipped from the two ports, but on the average Bombay is the better, due to the rather better type of hide available in that area. The great bulk of the Madras tanned hides are shipped by various exporting firms in "original bales" under the description of the name of the district from which the hide was drawn. A small percentage of the Madras tanned hides, and practically all the Bombay tanned hides, however, are consigned to various brokers in London for assortment and are sold by auction. There are innumerable grades of "original bales" which are generally sent over on a well-established basis of classification, e.g. 20 per cent second class, 60 per cent third class, and 20 per cent fourth class. There are two main varieties of tanned hides from Madras, the well-grown or Bangalore type which is tanned from the hides produced round about the plateau of which Bangalore is the centre, and the coast hide, which is usually a lighter and spreadier description, supplies for which are drawn from the more low-lying districts up to Coconada and beyond.

Before the War the tanned hides were rather freely adulterated with various weighting materials. This adulteration reached remarkable dimensions up to about fifteen years ago, but by continual pressure exercised by curriers through the shippers the abuse was curtailed, and by 1914 the amount of adulteration was small in comparison with previous years. During the War a considerable amount of Government control was introduced into the industry in view of the vital necessity of tanning as many hides as possible into leather suitable for Army boots. At one time there was a serious danger of shortage of upper leather for Army boots and the organisation by which the Indian Government controlled the Indian hide and tanning trade was the most important factor operating to overcome the difficulties. The question of the improper weighting of hides was one to which the Controller had early to turn his attention, and the attitude of the Indian Government on this highly important aspect of India's hide trade cannot be better indicated than by quoting again from the official *Review of the Trade in Indian Hides, Skins, and Leather* :—

"An opportunity was afforded by the Government control to deal

with the question of the adulteration and improper weighting of hides. In the early days of the Government scheme it was found that adulteration of hides by the addition in course of tannage of magnesium salts, sugar, and other adulterants was on the increase. One instance came to notice of a parcel of hides being adulterated to the extent of 29 per cent with Epsom salts. The leather adulterated in this way was liable to be completely spoilt, or at the best considerable expense was incurred by the adulterants having to be washed out in England. Attempts were made to check this practice by penalising heavily all adulterated hides presented to Government and by refusing altogether badly adulterated hides. Adulteration is not, however, in all cases easily detected without chemical analysis, and eventually, with the full approval of the commercial community in Madras, the practice of adulterating hides was made a penal offence by an order passed under the Defence of India Rules. To the credit of the Madras tanners it should be stated that in no single case has it been found necessary to proceed against a tanner for non-observance of these orders. In addition to this form of adulteration it used to be a prevailing practice in the case of certain tannages—notably 'Bangalores'—to add weight to the hide by the application after tannage of chalk and plaster to the flesh side. The practice—which did not occur in Bombay tannages—although not injurious to the leather in the same way as adulteration, adds nothing to its value, but is merely a form of artificial weighting. The chalk and the plaster has in all cases to be washed off by the currier in England before the hides can be used. The plastering of the hides also results in cuts on the flesh side being disguised. This practice was also prohibited by an order under the Defence of India Rules. The result has been that several of the so-called distinctive tannages in Madras have become practically indistinguishable from one another, and instead of recognising eight or nine separate tannages it has been possible to classify all Madras tannages into four grades—prime, best, good, and ordinary—each of the first three being sub-divided into two classes according to their growth and spread. 'Ordinary' hides were thin hides without sufficient substance for Army work and were classed as non-Army selection. There is evidence that this simplified classification and the prohibition of artificial weighting of hides has been appreciated by the Home trade. The question of adopting permanent measures to prevent adulteration after the War has been taken up by the Controller of Munitions at Madras, and the views of the commercial community are understood to be generally in favour of some action being taken, though agreement has not been arrived at regarding details. It is not too much to hope that the improvements effected as a war measure may not be entirely lost in time of peace, as they should enhance the reputation of East India kips in the Home markets."

Unless another devastating world event occurs the future of the trade in Indian hides seems assured of development. The gradual progress towards a higher standard of living throughout the world will be accompanied with a

demand for leather at a greater rate than cattle supplies can increase, and the demand for hides from such countries as India is likely to increase.

#### TANNED GOATSKINS

Table C 18 gives in detail the figures of exports of tanned goatskins. Ninety per cent are shipped to the United Kingdom, and most of the remainder go direct to the United States. A substantial proportion of those reaching the United Kingdom are subsequently re-exported, particulars of this trade being given in Table B 19 of Section B. Large quantities before the War were re-exported to Germany and Austria, where they were used for the manufacture of a variety of fancy leather goods and other objects, many of which were subsequently exported to this country. Owing to the difficulties of the industries concerned in Austria and Germany, the exports of these tanned goatskins from India after the War have been on a much smaller scale than was the case before the War. Tanned goatskins from India have not suffered from adulteration like the tanned hides have. Their chief characteristics are evenness, good substance, and small offal, which make them very suitable for fancy goods.

The tanning of goatskins was prohibited during a considerable part of the War in order that all the resources of the tanneries could be concentrated on turning out leather of use for military purposes, and this industry has not yet recovered much of its pre-War trade, as has the corresponding hide-tanning industry. Though Germany has come back into the trade and France has increased her capacity America, on the other hand, has almost ceased to be a buyer of tanned skins, and is taking practically nothing but raw skins which she is using for full chrome purposes. The quantity of goatskins tanned depends upon the relative prices in the world's market of the raw goatskins and the tanned, and in the latter part of 1923, when the price of the raw skin was very high, the number tanned was barely 50 per cent of the pre-War quantity.

#### TANNED SHEEPSKINS

Table C 19 gives in detail the figures of exports of tanned sheepskins. About 60 per cent of these are shipped to the United Kingdom, and particulars of the subsequent re-exports of these were shown in Table B 20 of Section B. Large quantities went direct to the United States before the War, and the falling off in this trade which has occurred since the War has been more than balanced by the increased shipments to Japan, which country is now second only to the United Kingdom as a consumer of Indian-tanned sheepskins. The most important use for which Indian sheepskins are tanned is the production of roller leather. A substantial number of Indian sheepskins have been used for roller leather in England (the number was about 300,000 per year during the War), and there has been a considerable trade in the export of roller skins from England to the textile mills in India. As in many other matters, however, India now produces a substantial amount towards her own requirements and

the *Review of the Trade in Indian Hides, Skins, and Leather* referred to this development as follows :—

“ Considerable success has also been attained in the manufacture of roller skins for use in cotton mills. The production of these skins is a highly specialised branch of the light leather trade and mill-owners throughout the world generally prefer the British-made skins. It is a matter therefore for congratulation that Indian tanners have made a great advance towards meeting the requirements of Indian mills. The Bombay Mill-owners' Association's estimate of the consumption of roller skins in cotton mills in India is 400,000 skins annually, or about 700 dozens weekly. The standard of the consumption in Lancashire mills is given by a recognised authority as four skins per week for every 10,000 spindles, but for various reasons, climatic and other, the average expenditure for this country is put at a dozen skins for the same period. The complaints generally made against the Indian-made roller skins are (1) that they are inelastic and therefore split when being put on the roller or get loose after being put on ; (2) that they are uneven, either because the hair is not completely removed or because there are blemishes or because the skin was originally not of uniform thickness ; and (3) that the prepared side is not smooth and glossy enough. While these defects, or at least some of them, are not uncommon, a large number of good skins are now produced and several manufacturers have expressed themselves as quite satisfied with Indian-made skins. The production in India has developed so rapidly that in October, 1917, four of the chief manufacturers were placing 750 dozens of roller skins weekly on the market, a figure in excess of the consumption of the cotton mills, and the out-turn in India may be estimated now at about 1,200 dozens per week. The excess not required in India is being exported, principally to Japan.”

The tanning of sheepskins was also prohibited during the second half of the War, but it is clear from statistics of exports that the industry very readily recovered from this.

#### LEATHER MANUFACTURES

The industries engaged in the manufacture of leather goods developed considerably during the War. Particulars of the output of boots and shoes and saddlery and harness are given in Chapter XI of *The Review of the Trade in Indian Hides, Skins, and Leather*. Details of the exports of boots and shoes from India are given in Table C 23, these showing a considerable increase for the post-War years over 1913-14. The only other leather manufactures which call for mention here are those for the requirements of India's textile mills. These have in the past been supplied mainly from this country, but also from Australia and Japan, but the development of manufacture in India is leading to the supplanting of the British by the Indian article. The *Review* gives the following table of leather articles required in the

## LEATHER, HIDES, AND SKINS

Bengal jute mills in 1919, and the extent to which these are supplied by local tanneries :—

Article.	Approximate total consumption per month of all mills.	Approximate quantities now being supplied by local tanneries.
Picking bands . . . . .	180 cwt.	20 per cent
Belt laces . . . . .	170 „	12 „
Leather belting . . . . .	60,000 feet	5 „
Martingale straps . . . . .	80 cwt.	10 „
Pump leather hides, etc. . . . .	20 „	20 „
Covering leathers, i.e. leather on edge, leather on flat . . . . .	60 „	6 „
Loom pickers . . . . .	58,800 pieces	10 „

## IMPORTS OF HIDES, SKINS, AND TANNING MATERIALS

Although infinitesimal in comparison with her export trade in hides, skins, and tanning materials, India has a certain import trade also in these articles, and particulars of these imports are set out in Tables C 24, 25, 26, and 27. Small quantities of hides and skins are received from many countries other than those named. The only point in these tables calling for special comment is the fact, indicated by Table C 26, that India, since the War, has been importing wattle bark from South Africa, over 2000 tons being received in the year 1920-21.

## IMPORTS OF LEATHER

A substantial amount of leather is imported into India, amounting to Rs.4,000,000 in 1913-14, Rs.12,900,000 in 1920-21, and Rs.6,600,000 in 1921-22, of which about 90 per cent came from Empire countries, mainly United Kingdom (Table C 28). Details of the hide leather are shown in Table C 29 and of skin and leather in C 30. A feature of the India official import returns and one indicative of the importance of the textile industry in that country, is the fact that figures are published of the imports of roller skins, picking bands and straps and pickers. These are shown in Tables C 32, 33, and 34 respectively. Practically the whole of the imports of these articles come from the United Kingdom, amounting in the aggregate to about Rs.4,400,000 in 1920-21, and Rs.3,600,000 (say £240,000) in 1921-22.

Table C 35 gives particulars of the imports of boots, and the very great falling off in the imports from the United Kingdom is the noteworthy feature of the table. From 1,900,000 pairs in 1913-14 India's imports of boots from this country fell to 68,000 pairs only in 1921-22. Ninety-nine per cent of the boots received in 1913-14 came from other Empire countries, but in 1920-21 and 1921-22 the percentages were only 53 and 70 respectively.

Statistics of imports of leather belting for machinery are set out in Table C 36. There was an appreciable falling off in the post-War imports in comparison with 1913-14 (see also Table B 115 in Section B), though the proportion from the Empire diminished from 93 per cent in 1913-14 to 83 per cent in 1920-21

and 88 per cent in 1921-22. Leather belting represents only about one-half of the total amount of machinery belting imported into India.

The figures of imports of saddlery and harness in Table C 37 call for no special comment, practically the whole coming from the United Kingdom. Those of bags and trunks in Table C 38 indicate the advent of Japan as a supplier of leather goods for India.

#### IMPORT TARIFF

There is an import tariff on all leather and leather manufactures imported, the rate of duty being 15 per cent *ad valorem* with no preference for the Empire.

#### SUMMARY OF INDIAN TRADE IN HIDES AND SKINS AND LEATHER

The position of India's foreign trade in hides, skins, tanning materials and leather in 1921 and 1922 can be summarised as follows :—

		Hides and Skins.	Tanning Materials.	Leather.	Leather Manufacturers.
		£(000)	£(000)	£(000)	£(000)
Production	1921	4,700	600	8,700	13,300
	1922	5,300	800	12,000	20,000
Imports	1921	small	—	900	1,600
	1922	small	—	500	800
Exports	1921	3,300	500	2,200	100
	1922	3,800	700	2,700	30
Consumption	1921	1,400	100	7,400	14,800
	1922	1,500	100	9,800	20,800

TABLE C 1

NUMBER OF CATTLE IN BRITISH INDIA AND INDIAN STATES, 1913-14 AND 1920-21.

	No. (000)			
	British India.		Indian States.	
	1913-14	1920-21	1913-14	1920-21
Bulls . . . . .	47,505	5,618	3,955	1,467
Bullocks . . . . .		43,318		9,081
Cows . . . . .	36,477	37,083	4,403	9,280
Young stock . . . . .	40,984	30,717	3,896	6,423
Buffaloes . . . . .	5,250	5,437	246	1,038
Cow buffaloes . . . . .	12,964	13,312	1,526	3,926
Young stock (buffalo calves) . . . . .	†	9,618	†	2,184
Total . . . . .	143,180	145,103	14,026	33,399

† Included in " Young Stock " (calves).

NUMBER OF SHEEP IN BRITISH INDIA AND  
INDIAN STATES, 1920-21

British India . . . . .	22,074,566
Indian States . . . . .	12,499,213

NUMBER OF GOATS IN BRITISH INDIA AND  
INDIAN STATES, 1920-21

British India . . . . .	24,293,873
Indian States . . . . .	6,276,073

NUMBER OF MULES IN BRITISH INDIA AND  
INDIAN STATES, 1920-21

British India . . . . .	75,703
Indian States . . . . .	5,689

NUMBER OF DONKEYS IN BRITISH INDIA AND  
INDIAN STATES, 1920-21

British India . . . . .	1,370,614
Indian States . . . . .	332,256

NUMBER OF HORSES AND PONIES IN BRITISH INDIA  
AND INDIAN STATES, 1920-21

	Horses.	Mares.	Young Stock (Colts & Fillies).
British India . . . . .	763,971	606,920	235,855
Indian States . . . . .	212,413	202,331	86,585

TABLE C 2

## EXPORTS OF RAW HIDES

	Quantity No.			Value Rs. (000).		
	1913-14	1920-21	1921-22	1913-14	1920-21	1921-22
Buffalo-hides . . .	1,967,018	347,728	256,432	22,037	2,638	1,214
Cow-hides . . .	8,967,518	3,345,796	5,422,235	59,055	16,248	16,286
Calfskins . . .	809,550	529,995	385,093	1,831	1,128	636
Other hides . . .	5,200	223	2	37	1	—
Total . . .	11,749,286	4,223,742	6,063,762	82,960	20,015	18,136

## EXPORTS OF RAW SKINS

Goatskins . . .	19,690,958	11,237,305	23,820,710	31,277	30,127	40,960
Sheepskins . . .	2,373,122	1,592,336	595,646	2,610	2,032	547
Other skins . . .	5,796	49,609	11,393	17	191	53
Total . . .	22,069,876	12,879,250	24,427,749	33,904	32,350	41,560

## EXPORTS OF LEATHER

	Value Rs. (000).	
1913-14	1920-21	1921-22
42,511	12,827	11,677

TABLE C 3

## EXPORTS FROM INDIA OF RAW COW-HIDES

Total Exports: 743,037 cwt. (Rs.59,055,000) in 1913-14, 281,260 cwt. (Rs.16,250,000) in 1920-21, 445,100 cwt. (Rs.16,286,000) in 1921-22.

To Empire Countries: 23,976 cwt. (Rs.1,682,000) in 1913-14, 61,660 cwt. (Rs.3,486,000) in 1920-21, 45,180 cwt. (Rs.1,529,000) in 1921-22.

(United Kingdom): 14,919 cwt. (Rs.942,000) in 1913, 42,120 cwt. (Rs.2,669,000) in 1920-21, 21,040 cwt. (Rs.793) in 1921-22.

(Straits Settlements): 26 cwt. (Rs.1,000) in 1913-14, 17,300 cwt. (Rs.706,000) in 1920-21, 23,580 cwt. (Rs.719,000) in 1921-22.

To Foreign Countries: 719,061 cwt. (Rs.57,373,000) in 1913-14, 219,600 cwt. (Rs.12,764,000) in 1920-21, 399,920 cwt. (Rs.14,757,000) in 1921-22.

(Germany): 356,195 cwt. (Rs.28,547,000) in 1913-14, 63,140 cwt. (Rs.3,270,000) in 1920-21, 217,240 cwt. (Rs.8,403,000) in 1921-22.

(Belgium): 20,435 cwt. (Rs.1,368,000) in 1913-14, 1,880 cwt. (Rs.91,000) in 1920-21, 4,060 cwt. (Rs.131,000) in 1921-22.

(Spain): 41,865 cwt. (Rs.3,821,000) in 1913-14, 27,660 cwt. (Rs.1,628,000) in 1920-21, 58,240 cwt. (Rs.2,147,000) in 1921-22.

(Italy): 92,662 cwt. (Rs.7,520,000) in 1913-14, 59,140 cwt. (Rs.2,818,000) in 1920-21, 92,000 cwt. (Rs.3,132,000) in 1921-22.

(Austria-Hungary): 141,537 cwt. (Rs.11,451,000) in 1913-14, 1,820 cwt. (Rs.95,000) in 1920-21, 240 cwt. (Rs.8,000) in 1921-22.

(United States): 36,820 cwt. (Rs.2,580,000) in 1913-14, 39,560 cwt. (Rs.3,443,000) in 1920-21, 340 cwt. (Rs.24,000) in 1921-22.



TABLE C 4

## EXPORTS FROM INDIA OF RAW BUFFALO-HIDES

Total Exports :	345,864 cwt. (Rs.22,038,000) in 1913-14, 66,140 cwt. (Rs.2,639,000) in 1920-21, 46,480 cwt. (Rs.1,213,000) in 1921-22.
To Empire Countries :	30,174 cwt. (Rs.1,562,000) in 1913-14, 19,800 cwt. (Rs.673,000) in 1920-21, 23,060 cwt. (Rs.568,000) in 1921-22.
(United Kingdom) :	26,254 cwt. (Rs.1,464,000) in 1913-14, 17,320 cwt. (Rs.616,000) in 1920-21, 16,960 cwt. (Rs.466,000) in 1921-22.
To Foreign Countries :	315,690 cwt. (Rs.20,476,000) in 1913-14, 46,340 cwt. (Rs.1,966,000) in 1920-21, 23,420 cwt. (Rs.645,000) in 1921-22.
(Germany) :	30,785 cwt. (Rs.2,015,000) in 1913-14, 8,900 cwt. (Rs.356,000) in 1920-21, 13,540 cwt. (Rs.432,000) in 1921-22.
(Holland) :	32,485 cwt. (Rs.2,110,000) in 1913-14, 2,500 cwt. (Rs.74,000) in 1920-21, 740 cwt. (Rs.18,000) in 1921-22.
(Austria-Hungary) :	91,736 cwt. (Rs.6,693,000) in 1913-14, 1,140 cwt. (Rs.24,000) in 1920-21.
(United States) :	114,476 cwt. (Rs.7,711,000) in 1913-14, 21,760 cwt. (Rs.1,152,000) in 1920-21.

TABLE C 5

## EXPORTS FROM INDIA OF COW CALFSKINS

Total Exports :	13,320 cwt. (Rs.837,000) in 1920-21, 10,940 cwt. (Rs.497,000) in 1921-22.
To Empire Countries :	1,740 cwt. (Rs.108,000) in 1920-21, 2,100 cwt. (Rs.50,000) in 1921-22.
(United Kingdom) :	1,740 cwt. (Rs.108,000) in 1920-21, 2,100 cwt. (Rs.49,000) in 1921-22.
To Foreign Countries :	11,580 cwt. (Rs.729,000) in 1920-21, 8,840 cwt. (Rs.447,000) in 1921-22.
(Spain) :	7,340 cwt. (Rs.487,000) in 1920-21, 4,880 cwt. (Rs.271,000) in 1921-22.
(Italy) :	640 cwt. (Rs.44,000) in 1920-21, 3,260 cwt. (Rs.153,000) in 1921-22.

TABLE C 6

## EXPORTS FROM INDIA OF BUFFALO CALFSKINS

Total Exports :	8,120 cwt. (Rs.290,000) in 1920-21, 5,280 cwt. (Rs.139,000) in 1921-22.
To Empire Countries :	1,600 cwt. (Rs.74,000) in 1920-21, 1,000 cwt. (Rs.13,000) in 1921-22.
(United Kingdom) :	1,600 cwt. (Rs.74,000) in 1920-21, 1,000 cwt. (Rs.13,000) in 1921-22.

To Foreign Countries: 6,520 cwt. (Rs.216,000) in 1920-21, 4,280 cwt. (Rs.126,000) in 1921-22.  
*(Germany)*: 1,260 cwt. (Rs.56,000) in 1920-21, 740 cwt. (Rs.38,000) in 1921-22.  
*(Italy)*: 1,760 cwt. (Rs.46,000) in 1920-21, 1,420 cwt. (Rs.33,000) in 1921-22.  
*(United States)*: 1,400 cwt. (Rs.54,000) in 1920-21, 620 cwt. (Rs.14,000) in 1921-22.

TABLE C 7

## EXPORTS FROM INDIA OF ALL CALFSKINS

Total Exports: 26,116 cwt. (Rs.1,831,000) in 1913-14, 21,440 cwt. (Rs.1,129,000) in 1920-21, 16,220 cwt. (Rs.636,000) in 1921-22.  
 To Empire Countries: 956 cwt. (Rs.75,000) in 1913-14, 3,340 cwt. (Rs.183,000) in 1920-21, 3,100 cwt. (Rs.63,000) in 1921-22.  
*(United Kingdom)*: 913 cwt. (Rs.69,000) in 1913-14, 3,340 cwt. (Rs.182,000) in 1920-21, 3,100 cwt. (Rs.62,000) in 1921-22.  
 To Foreign Countries: 25,160 cwt. (Rs.1,756,000) in 1913-14, 18,100 cwt. (Rs.946,000) in 1920-21, 13,120 cwt. (Rs.573,000) in 1921-22.  
*(Germany)*: 1,213 cwt. (Rs.86,000) in 1913-14, 1,400 cwt. (Rs.67,000) in 1920-21, 860 cwt. (Rs.43,000) in 1921-22.  
*(Spain)*: 6,843 cwt. (Rs.587,000) in 1913-14, 7,440 cwt. (Rs.490,000) in 1920-21, 6,240 cwt. (Rs.311,000) in 1921-22.  
*(Italy)*: 6,822 cwt. (Rs.490,000) in 1913-14, 2,400 cwt. (Rs.90,000) in 1920-21, 4,680 cwt. (Rs.185,000) in 1921-22.  
*(United States)*: 4,076 cwt. (Rs.176,000) in 1913-14, 2,040 cwt. (Rs.80,000) in 1920-21, 860 cwt. (Rs.22,000) in 1921-22.

TABLE C 8

## EXPORTS FROM INDIA OF RAW GOATSKINS

Total Exports: 453,356 cwt. (Rs.31,278,000) in 1913-14, 207,640 cwt. (Rs.30,125,000) in 1920-21, 433,780 cwt. (Rs.40,960,000) in 1921-22.  
 To Empire Countries: 43,252 cwt. (Rs.2,368,000) in 1913-14, 51,960 cwt. (Rs.7,796,000) in 1920-21, 51,960 cwt. (Rs.4,146,000) in 1921-22.  
*(United Kingdom)*: 40,259 cwt. (Rs.2,084,000) in 1913-14, 46,120 cwt. (Rs.6,362,000) in 1920-21, 38,820 cwt. (Rs.2,443,000) in 1921-22.  
*(Canada)*: 990 cwt. (Rs.93,000) in 1913-14, 2,860 cwt. (Rs.513,000) in 1920-21, 7,360 cwt. (Rs.611,000) in 1921-22.  
*(Australia)*: 1,964 cwt. (Rs.186,000) in 1913-14, 2,980 cwt. (Rs.919,000) in 1920-21, 5,780 cwt. (Rs.1,091,000) in 1921-22.  
 To Foreign Countries: 410,104 cwt. (Rs.28,910,000) in 1913-14, 155,680 cwt. (Rs.22,329,000) in 1920-21, 381,800 cwt. (Rs.36,814,000) in 1921-22.  
*(Germany)*: 11,118 cwt. (Rs.1,055,000) in 1913-14, 1,200 cwt. (Rs.110,000) in 1920-21, 3,500 cwt. (Rs.368,000) in 1921-22.

## LEATHER, HIDES, AND SKINS

(Holland): 23,551 cwt. (Rs.2,358,000) in 1913-14, 7,660 cwt. (Rs.614,000) in 1920-21, 29,600 cwt. (Rs.2,850,000) in 1921-22.  
 (Belgium): 8,935 cwt. (Rs.713,000) in 1913-14, 1,720 cwt. (Rs.235,000) in 1920-21, 1,460 cwt. (Rs.118,000) in 1921-22.  
 (France): 22,717 cwt. (Rs.1,850,000) in 1913-14, 5,820 cwt. (Rs.1,230,000) in 1920-21, 12,620 cwt. (Rs.1,401,000) in 1921-22.  
 (United States): 342,452 cwt. (Rs.22,754,000) in 1913-14, 138,040 cwt. (Rs.19,919,000) in 1920-21, 333,440 cwt. (Rs.32,007,000) in 1921-22.

TABLE C 9

## EXPORTS FROM INDIA OF RAW SHEEPSKINS

Total Exports: 33,067 cwt. (Rs.2,611,000) in 1913-14, 26,280 cwt. (Rs.2,033,000) in 1920-21, 8,280 cwt. (Rs.546,000) in 1921-22.  
 To Empire Countries: 1,939 cwt. (Rs.188,000) in 1913-14, 7,600 cwt. (Rs.475,000) in 1920-21, 1,020 cwt. (Rs.135,000) in 1921-22.  
 (United Kingdom): 1,599 cwt. (Rs.141,000) in 1913-14, 7,200 cwt. (Rs.433,000) in 1920-21, 920 cwt. (Rs.127,000) in 1921-22.  
 To Foreign Countries: 31,128 cwt. (Rs.2,423,000) in 1913-14, 18,780 cwt. (Rs.1,558,000) in 1920-21, 7,260 cwt. (Rs.411,000) in 1921-22.  
 (United States): 28,818 cwt. (Rs.2,269,000) in 1913-14, 16,540 cwt. (Rs.1,427,000) in 1920-21, 5,820 cwt. (Rs.341,000) in 1921-22.

TABLE C 10

## EXPORTS FROM INDIA OF MYROBALANS

Total Exports: 1,236,394 cwt. (Rs.5,695,000) in 1913-14, 792,934 cwt. (Rs.4,079,000) in 1920-21, 1,238,937 cwt. (Rs.5,866,000) in 1921-22.  
 To Empire Countries: 520,341 cwt. (Rs.2,215,000) in 1913-14, 344,542 cwt. (Rs.1,909,000) in 1920-21, 402,357 cwt. (Rs.1,874,000) in 1921-22.  
 (United Kingdom): 504,001 cwt. (Rs.2,140,000) in 1913-14, 324,773 cwt. (Rs.1,789,000) in 1920-21, 362,711 (Rs.1,712,000) in 1921-22.  
 (Australia): 10,597 cwt. (Rs.51,000) in 1913-14, 12,686 cwt. (Rs.83,000) in 1920-21, 25,411 cwt. (Rs.113,000) in 1921-22.  
 To Foreign Countries: 716,053 cwt. (Rs.3,480,000) in 1913-14, 448,393 cwt. (Rs.2,170,000) in 1920-21, 836,580 cwt. (Rs.3,992,000) in 1921-22.  
 (Germany): 270,767 cwt. (Rs.1,347,000) in 1913-14, 55,480 cwt. (Rs.311,000) in 1920-21, 396,499 cwt. (Rs.2,153,000) in 1921-22.  
 (Belgium): 136,028 cwt. (Rs.685,000) in 1913-14, 47,366 cwt. (Rs.309,000) in 1920-21, 65,047 cwt. (Rs.332,000) in 1921-22.  
 (France): 40,814 cwt. (Rs.185,000) in 1913-14, 20,602 cwt. (Rs.137,000) in 1920-21, 40,380 cwt. (Rs.222,000) in 1921-22.  
 (United States): 187,288 cwt. (Rs.855,000) in 1913-14, 293,699 cwt. (Rs.1,254,000) in 1920-21, 270,187 cwt. (Rs.1,032,000) in 1921-22.

TABLE C 11

## EXPORTS FROM INDIA OF MYROBALAN EXTRACT

Total Exports : 32,559 cwt. (Rs.643,000) in 1920-21, 39,944 cwt. (Rs.490,000) in 1921-22.  
 To Empire Countries : 28,165 cwt. (Rs.542,000) in 1920-21, 29,127 cwt. (Rs.360,000) in 1921-22.  
 (*United Kingdom*) : 22,016 cwt. (Rs.406,000) in 1920-21, 23,854 cwt. (Rs.295,000) in 1921-22.  
 (*Australia*) : 4,632 cwt. (Rs.103,000) in 1920-21, 3,193 cwt. (Rs.38,000) in 1921-22.  
 To Foreign Countries : 4,394 cwt. (Rs.101,000) in 1920-21, 10,817 cwt. (Rs.130,000) in 1921-22.

TABLE C 12

## EXPORTS OF DYEING AND TANNING SUBSTANCES

	Quantity (Cwt.)			Value Rs. (000)		
	1920-21	1913-14	1921-22	1920-21	1913-14	1921-22
Barks for tanning	7,673	†	4,886	51	†	27
Cutch and gambier	39,386	58,859	29,653	873	932	562
Indigo	10,250	10,939	12,362	4,121	2,129	5,137
Myrobalans	792,934	1,236,394	1,238,937	4,078	5,694	5,867
Myrobalan extract	32,559	—	39,944	642	—	489
Safflower	3,364	3,983	1,543	66	59	23
Turmeric	54,765	115,027	48,187	977	1,313	911
Other sorts	15,174	42,117	19,299	187	276	206
Total	956,105	1,467,319	1,394,811	10,995	10,403	13,222

† Not separately recorded before 1920.

TABLE C 13

## EXPORTS FROM INDIA OF CUTCH AND GAMBIER

Total Exports : 58,859 cwt. (Rs.932,000) in 1913-14, 39,386 cwt. (Rs.874,000) in 1920-21, 29,653 cwt. (Rs.563,000) in 1921-22.  
 To Empire Countries : 36,748 cwt. (Rs.579,000) in 1913-14, 30,230 cwt. (Rs.675,000) in 1920-21, 13,108 cwt. (Rs.259,000) in 1921-22.  
 (*United Kingdom*) : 33,599 cwt. (Rs.521,000) in 1913-14, 26,311 cwt. (Rs.577,000) in 1920-21, 10,941 cwt. (Rs.198,000) in 1921-22.  
 (*Ceylon*) : 1,283 cwt. (Rs.20,000) in 1913-14, 477 cwt. (Rs.14,000) in 1920-21, 683 cwt. (Rs.20,000) in 1921-22.  
 (*Hong-Kong*) : 1,435 cwt. (Rs.27,000) in 1913-14, 3,131 cwt. (Rs.76,000) in 1920-21, 880 cwt. (Rs.26,000) in 1921-22.

To Foreign Countries: 22,111 cwt. (Rs.353,000) in 1913-14, 9,156 cwt. (Rs.199,000) in 1920-21, 16,545 cwt. (Rs.304,000) in 1921-22.  
*(Germany)*: 3,848 cwt. (Rs.57,000) in 1913-14, 100 cwt. (Rs.2,000) in 1920-21, 1,587 cwt. (Rs.26,000) in 1921-22.  
*(Holland)*: 5,630 cwt. (Rs.94,000) in 1913-14, 1,450 cwt. (Rs.29,000) in 1920-21, 3,775 cwt. (Rs.72,000) in 1921-22.  
*(France)*: 8,760 cwt. (Rs.143,000) in 1913-14, 4,340 cwt. (Rs.98,000) in 1920-21, 2,150 cwt. (Rs.36,000) in 1921-22.  
*(Japan)*: 1,529 cwt. (Rs.31,000) in 1920-21, 4,752 cwt. (Rs.102,000) in 1921-22.  
*(United States)*: 1,705 cwt. (Rs.28,000) in 1913-14, 1,506 cwt. (Rs.32,000) in 1920-21, 4,003 cwt. (Rs.61,000) in 1921-22.

## TABLE C 14

## EXPORTS FROM INDIA OF BARKS FOR TANNING

Total Exports: 7,673 cwt. (Rs.51,000) in 1920-21, 4,886 cwt. (Rs.27,000) in 1921-22.  
 To Empire Countries: 4,609 cwt. (Rs.25,000) in 1920-21, 4,770 cwt. (Rs.25,000) in 1921-22.  
*(Ceylon)*: 4,052 cwt. (Rs.23,000) in 1920-21, 4,065 cwt. (Rs.20,000) in 1921-22.  
 To Foreign Countries: 3,064 cwt. (Rs.26,000) in 1920-21, 116 cwt. (Rs.2,000) in 1921-22.

## TABLE C 15

## EXPORTS FROM INDIA OF LEATHER (TOTAL VALUE)

Total Exports: Rs.42,502,000 in 1913-14, Rs.32,954,000 in 1920-21, Rs.40,337,000 in 1921-22.  
 To Empire Countries: Rs.37,225,000 in 1913-14, Rs.27,862,000 in 1920-21, Rs.33,348,000 in 1921-22.  
*(United Kingdom)*: Rs.36,551,000 in 1913-14, Rs.25,352,000 in 1920-21, Rs.28,812,000 in 1921-22.  
*(Straits Settlements)*: Rs.440,000 in 1913-14, Rs.1,621,000 in 1920-21, Rs.1,837,000 in 1921-22.  
*(Hong-Kong)*: Rs.39,000 in 1913-14, Rs.526,000 in 1920-21, Rs.1,657,000 in 1921-22.  
 To Foreign Countries: Rs.5,277,000 in 1913-14, Rs.5,182,000 in 1920-21, Rs.6,989,000 in 1921-22.  
*(Germany)*: Rs.457,000 in 1913-14, Rs.123,000 in 1920-21, Rs.240,000 in 1921-22.  
*(China)*: Rs.36,000 in 1913-14, Rs.141,000 in 1920-21, Rs.252,000 in 1921-22.  
*(Japan)*: Rs.1,326,000 in 1913-14, Rs.2,437,000 in 1920-21, Rs.4,406,000 in 1921-22.  
*(United States)*: Rs.3,114,000 in 1913-14, Rs.1,553,000 in 1920-21, Rs.1,280,000 in 1921-22.  
*(France)*: Rs.326,000 in 1920-21, Rs.82,000 in 1921-22.  
*(Netherlands)*: Rs.135,000 in 1920-21, Rs.377,000 in 1921-22.

TABLE C 16

## EXPORTS FROM INDIA OF TANNED COW-HIDES

Total Exports: 158,383 cwt. (Rs.14,740,000) in 1913-14, 70,260 cwt. (Rs.9,811,000) in 1920-21, 109,940 cwt. (Rs.13,024,000) in 1921-22.

To Empire Countries: 156,285 cwt. (Rs.14,541,000) in 1913-14, 65,720 cwt. (Rs.9,281,000) in 1920-21, 106,440 cwt. (Rs.12,588,000) in 1921-22.

(*United Kingdom*): 155,550 cwt. (Rs.14,461,000) in 1913-14, 60,680 cwt. (Rs.8,807,000) in 1920-21, 91,260 cwt. (Rs.10,694,000) in 1921-22.

(*Straits Settlements*): 142 cwt. (Rs.11,000) in 1913-14, 2,280 cwt. (Rs.199,000) in 1920-21, 680 cwt. (Rs.107,000) in 1921-22.

(*Hong-Kong*): 24 cwt. (Rs.3,000) in 1913-14, 2,080 cwt. (Rs.179,000) in 1920-21, 13,100 cwt. (Rs.1,618,000) in 1921-22.

To Foreign Countries: 2,098 cwt. (Rs.199,000) in 1913-14, 4,540 cwt. (Rs.530,000) in 1920-21, 3,500 cwt. (Rs.436,000) in 1921-22.

(*China*): 272 cwt. (Rs.27,000) in 1913-14, 660 cwt. (Rs.64,000) in 1920-21, 1,680 cwt. (Rs.193,000) in 1921-22.

(*United States*): 829 cwt. (Rs.65,000) in 1913-14, 2,400 cwt. (Rs.260,000) in 1920-21, 200 cwt. (Rs.28,000) in 1921-22.

(*Netherlands*): 820 cwt. (Rs.89,000) in 1920-21, 1,120 cwt. (Rs.116,000) in 1921-22.

(*Germany*): 120 cwt. (Rs.16,000) in 1920-21, 380 cwt. (Rs.76,000) in 1921-22.

TABLE C 17

## EXPORTS FROM INDIA OF TANNED BUFFALO HIDES

Total Exports: 15,545 cwt. (Rs.1,128,000) in 1913-14, 5,420 cwt. (Rs.525,000) in 1920-21, 10,120 cwt. (Rs.790,000) in 1921-22.

To Empire Countries: 14,174 cwt. (Rs.1,007,000) in 1913-14, 5,140 cwt. (Rs.494,000) in 1920-21, 8,940 cwt. (Rs.645,000) in 1921-22.

(*United Kingdom*): 14,047 cwt. (Rs.992,000) in 1913-14, 4,120 cwt. (Rs.403,000) in 1920-21, 7,160 cwt. (Rs.470,000) in 1921-22.

(*Egypt*): 40 cwt. (Rs.11,000) in 1920-21, 820 cwt. (Rs.91,000) in 1921-22.

(*Kenya Colony*): 380 cwt. (Rs.38,000) in 1920-21; 460 cwt. (Rs.48,000) in 1921-22.

To Foreign Countries: 1,371 cwt. (Rs.121,000) in 1913-14, 280 cwt. (Rs.31,000) in 1920-21, 1,180 cwt. (Rs.145,000) in 1921-22.

TABLE C 18

## EXPORTS FROM INDIA OF TANNED GOATSKINS

Total Exports: 74,126 cwt. (Rs.16,107,000) in 1913-14, 16,480 cwt. (Rs.7,333,000) in 1920-21, 24,000 cwt. (Rs.8,254,000) in 1921-22.

To Empire Countries: 66,527 cwt. (Rs.14,503,000) in 1913-14, 15,360 cwt. (Rs.6,877,000) in 1920-21, 21,580 cwt. (Rs.7,577,000) in 1921-22.

## LEATHER, HIDES, AND SKINS

(*United Kingdom*): 66,446 cwt. (Rs.14,487,000) in 1913-14, 15,320 cwt. (Rs.6,863,000) in 1920-21, 21,560 cwt. (Rs.7,562,000) in 1921-22.  
 To Foreign Countries: 7,599 cwt. (Rs.1,604,000) in 1913-14, 1,120 cwt. (Rs.456,000) in 1920-21, 2,420 cwt. (Rs.677,000) in 1921-22.  
 (*Germany*): 1,663 cwt. (Rs.424,000) in 1913-14, 20 cwt. (Rs.9,000) in 1920-21, 180 cwt. (Rs.64,000) in 1921-22.  
 (*United States*): 5,846 cwt. (Rs.1,162,000) in 1913-14, 580 cwt. (Rs.182,000) in 1920-21, 1,600 cwt. (Rs.406,000) in 1921-22.  
 (*France*): 340 cwt. (Rs.214,000) in 1920-21, 40 cwt. (Rs.22,000) in 1921-22.  
 (*Netherlands*): Rs.6,000 in 1920-21, 320 cwt. (Rs.108,000) in 1921-22.

TABLE C 19

## EXPORTS FROM INDIA OF TANNED SHEEPSKINS

Total Exports: 49,652 cwt. (Rs.9,586,000) in 1913-14, 36,460 cwt. (Rs.12,669,000) in 1920-21, 55,180 cwt. (Rs.15,735,000) in 1921-22.  
 To Empire Countries: 31,431 cwt. (Rs.6,302,000) in 1913-14, 24,260 cwt. (Rs.9,090,000) in 1920-21, 35,060 cwt. (Rs.10,313,000) in 1921-22.  
 (*United Kingdom*): 29,202 cwt. (Rs.5,886,000) in 1913-14, 20,160 cwt. (Rs.7,946,000) in 1920-21, 28,440 cwt. (Rs.8,767,000) in 1921-22.  
 (*Straits Settlements*): 1,718 cwt. (Rs.338,000) in 1913-14, 3,800 cwt. (Rs.1,055,000) in 1920-21, 6,360 cwt. (Rs.1,487,000) in 1921-22.  
 To Foreign Countries: 18,221 cwt. (Rs.3,284,000) in 1913-14, 12,200 cwt. (Rs.3,579,000) in 1920-21, 20,120 cwt. (Rs.5,422,000) in 1921-22.  
 (*Japan*): 7,459 cwt. (Rs.1,320,000) in 1913-14, 8,780 cwt. (Rs.2,386,000) in 1920-21, 16,180 cwt. (Rs.4,322,000) in 1921-22.  
 (*United States*): 10,365 cwt. (Rs.1,883,000) in 1913-14, 2,720 cwt. (Rs.950,000) in 1920-21, 2,600 cwt. (Rs.748,000) in 1921-22.

TABLE C 20

## EXPORTS FROM INDIA OF TANNED COW CALFSKINS

Total Exports: 4,560 cwt. (Rs.922,000) in 1920-21, 5,220 cwt. (Rs.675,000) in 1921-22.  
 To Empire Countries: 4,440 cwt. (Rs.904,000) in 1920-21, 5,140 cwt. (Rs.667,000) in 1921-22.  
 (*United Kingdom*): 4,420 cwt. (Rs.901,000) in 1920-21, 5,120 cwt. (Rs.664,000) in 1921-22.  
 To Foreign Countries: 120 cwt. (Rs.18,000) in 1920-21, 80 cwt. (Rs.8,000) in 1921-22.

TABLE C 21

## EXPORTS FROM INDIA OF TANNED BUFFALO CALFSKINS

Total Exports : 1,200 cwt. (Rs.215,000) in 1920-21, 980 cwt. (Rs.94,000) in 1921-22.  
 To Empire Countries : 1,160 cwt. (Rs.209,000) in 1920-21, 940 cwt. (Rs.89,000) in 1921-22.  
 (*United Kingdom*) : 1,160 cwt. (Rs.209,000) in 1920-21, 940 cwt. (Rs.89,000) in 1921-22.  
 To Foreign Countries : 40 cwt. (Rs.6,000) in 1920-21, 40 cwt. (Rs.5,000) in 1921-22.

TABLE C 22

## EXPORTS FROM INDIA OF LEATHER UNWROUGHT

Total Exports : 1,189 cwt. (Rs.187,000) in 1913-14, 8,144 cwt. (Rs.1,064,000) in 1920-21, 4,539 cwt. (Rs.695,000) in 1921-22.  
 To Empire Countries : 826 cwt. (Rs.149,000) in 1913-14, 6,008 cwt. (Rs.782,000) in 1920-21, 4,109 cwt. (Rs.605,000) in 1921-22.  
 (*United Kingdom*) : 131 cwt. (Rs.25,000) in 1913-14, 407 cwt. (Rs.131,000) in 1920-21, 498 cwt. (Rs.115,000) in 1921-22.  
 (*Straits Settlements*) : 229 cwt. (Rs.85,000) in 1913-14, 2,553 cwt. (Rs.338,000) in 1920-21, 1,594 cwt. (Rs.220,000) in 1921-22.  
 (*Hong-Kong*) : 197 cwt. (Rs.9,000) in 1913-14, 2,645 cwt. (Rs.229,000) in 1920-21, 231 cwt. (Rs.26,000) in 1921-22.  
 (*Mesopotamia*) : 1,325 cwt. (Rs.179,000) in 1921-22.  
 (*Egypt*) : 200 cwt. (Rs.44,000) in 1920-21, 260 cwt. (Rs.28,000) in 1921-22.  
 To Foreign Countries : 363 cwt. (Rs.38,000) in 1913-14, 2,136 cwt. (Rs.282,000) in 1920-21, 430 cwt. (Rs.90,000) in 1921-22.  
 (*Persian Gulf*) : 5 cwt. (Rs.1,000) in 1913-14, 575 cwt. (Rs.105,000) in 1920-21.  
 (*Persia*) : 140 cwt. (Rs.24,000) in 1913-14, 124 cwt. (Rs.23,000) in 1920-21, 54 cwt. (Rs.9,000) in 1921-22.  
 (*Java*) : 8 cwt. (Rs.3,000) in 1913-14, 822 cwt. (Rs.43,000) in 1920-21, 104 cwt. (Rs.27,000) in 1921-22.  
 (*China*) : 171 cwt. (Rs.6,000) in 1913-14 ; 496 cwt. (Rs.61,000) in 1920-21, 169 cwt. (Rs.18,000) in 1921-22.

TABLE C 23

## EXPORTS FROM INDIA OF BOOTS AND SHOES

Total Exports : 51,987 pairs (Rs.67,000) in 1913-14, 273,923 pairs (Rs.1,316,000) in 1920-21, 136,954 pairs (Rs.462,000) in 1921-22.  
 To Empire Countries : 37,054 pairs (Rs.65,000) in 1913-14, 86,283 pairs (Rs.364,000) in 1920-21 ; 102,227 pairs (Rs.372,000) in 1921-22.



(*Aden and Dependencies*): 8,246 pairs (Rs.10,000) in 1913-14, 9,064 pairs (Rs.24,000) in 1920-21, 11,721 pairs (Rs.24,000) in 1921-22.  
 (*Mauritius*): 12,990 pairs (Rs.15,000) in 1913-14, 6,454 pairs (Rs.29,000) in 1920-21, 12,004 pairs (Rs.49,000) in 1921-22.  
 (*Zanzibar*): 3,855 pairs (Rs.5,000) in 1913-14, 9,189 pairs (Rs.21,000) in 1920-21, 11,129 pairs (Rs.22,000) in 1921-22.  
 (*East Africa*): 2,452 pairs (Rs.6,000) in 1913-14, 14,951 pairs (Rs.40,000) in 1920-21, 10,903 pairs (Rs.23,000) in 1921-22.  
 (*Mesopotamia*): 34,181 pairs (Rs.171,000) in 1921-22.  
 (*Egypt*): 21,436 pairs (Rs.174,000) in 1920-21, 832 pairs (Rs.13,000) in 1921-22.  
 To Foreign Countries: 14,933 pairs (Rs.22,000) in 1913-14, 187,640 pairs (Rs.952,000) in 1920-21, 34,727 pairs (Rs.90,000) in 1921-22.  
 (*Turkey*): 1,436 pairs (Rs.3,000) in 1913-14, 102,472 pairs (Rs.577,000) in 1920-21.  
 (*Arabia*): 1,720 pairs (Rs.2,000) in 1913-14, 2,710 pairs (Rs.3,000) in 1920-21, 15,260 pairs (Rs.43,000) in 1921-22.  
 (*Persia*): 1,679 pairs (Rs.3,000) in 1913-14, 13,243 pairs (Rs.43,000) in 1920-21, 5,748 pairs (Rs.16,000) in 1921-22.  
 (*Greece*): 51,666 pairs (Rs.273,000) in 1920-21.

TABLE C 24

## IMPORTS INTO INDIA OF RAW HIDES

Total Imports: 4,021 cwt. (Rs.162,000) in 1913-14, 3,560 cwt. (Rs.109,000) in 1920-21, 8,120 cwt. (Rs.183,000) in 1921-22.  
 From Empire Countries: 2,146 cwt. (Rs.74,000) in 1913-14, 2,920 cwt. (Rs.84,000) in 1920-21, 5,700 cwt. (Rs.147,000) in 1921-22.  
 (*Ceylon*): 735 cwt. (Rs.23,000) in 1913-14, 2,700 cwt. (Rs.72,000) in 1920-21, 3,760 cwt. (Rs.96,000) in 1921-22.  
 From Foreign Countries: 1,875 cwt. (Rs.88,000) in 1913-14, 640 cwt. (Rs.25,000) in 1920-21, 2,420 cwt. (Rs.36,000) in 1921-22.

TABLE C 25

## IMPORTS INTO INDIA OF RAW SKINS

Total Imports: 28,885 cwt. (Rs.1,355,000) in 1913-14, 12,140 cwt. (Rs.937,000) in 1920-21, 11,980 cwt. (Rs.798,000) in 1921-22.  
 From Empire Countries: 15,754 cwt. (Rs.738,000) in 1913-14, 8,040 cwt. (Rs.676,000) in 1920-21, 9,320 cwt. (Rs.672,000) in 1921-22.  
 (*United Kingdom*): 491 cwt. (Rs.43,000) in 1913-14, 60 cwt. (Rs.9,000) in 1920-21, 680 cwt. (Rs.39,000) in 1921-22.  
 (*Aden and Dependencies*): 4,304 cwt. (Rs.200,000) in 1913-14, 900 cwt. (Rs.49,000) in 1920-21, 700 cwt. (Rs.43,000) in 1921-22.  
 (*Bahrein Islands*): 1,129 cwt. (Rs.47,000) in 1913-14, 340 cwt. (Rs.19,000) in 1920-21, 500 cwt. (Rs.16,000) in 1921-22.

(*Ceylon*) : 7,988 cwt. (Rs.352,000) in 1913-14, 5,820 cwt. (Rs.538,000) in 1920-21, 4,480 cwt. (Rs.433,000) in 1921-22.

(*Straits Settlements*) : 1,614 cwt. (Rs.84,000) in 1913-14, 780 cwt. (Rs.49,000) in 1920-21, 880 cwt. (Rs.45,000) in 1921-22.

From Foreign Countries : 13,131 cwt. (Rs.617,000) in 1913-14, 4,100 cwt. (Rs.261,000) in 1920-21, 2,660 cwt. (Rs.126,000) in 1921-22.

(*Maskat Territory*) : 905 cwt. (Rs.75,000) in 1913-14, 1,040 cwt. (Rs.78,000) in 1920-21, 680 cwt. (Rs.46,000) in 1921-22.

(*Persia*) : 10,723 cwt. (Rs.441,000) in 1913-14, 2,720 cwt. (Rs.152,000) in 1920-21, 1,740 cwt. (Rs.67,000) in 1921-22.

TABLE C 26

## IMPORTS INTO INDIA OF BARKS FOR TANNING

Total Imports : 42,589 cwt. (Rs.42,000) in 1920-21, 24,211 cwt. (Rs.189,000) in 1921-22.

From Empire Countries : 42,589 cwt. (Rs.42,000) in 1920-21, 23,650 cwt. (Rs.186,000) in 1921-22.

(*Natal*) : 41,934 cwt. (Rs.38,000) in 1920-21, 23,603 cwt. (Rs.186,000) in 1921-22.

To Foreign Countries : 561 cwt. (Rs.3,000) in 1921-22.

TABLE C 27

## IMPORTS INTO INDIA OF DYEING AND TANNING SUBSTANCES, CUTCH AND GAMBIE

Total Imports : 43,296 cwt. (Rs.826,000) in 1913-14, 30,599 cwt. (Rs.1,000,000) in 1920-21, 40,760 cwt. (Rs.1,114,000) in 1921-22.

From Empire Countries : 43,296 cwt. (Rs.826,000) in 1913-14, 30,599 cwt. (Rs.1,000,000) in 1920-21, 40,558 cwt. (Rs.1,108,000) in 1921-22.

(*Straits Settlements*) : 43,290 cwt. (Rs.826,000) in 1913-14, 30,421 cwt. (Rs.995,000) in 1920-21, 40,229 cwt. (Rs.1,101,000) in 1921-22.

From Foreign Countries : 202 cwt. (Rs.6,000) in 1921-22.

TABLE C 28

## IMPORTS INTO INDIA OF LEATHER (TOTAL VALUE)

Total Imports : Rs.4,000,000 in 1913-14, Rs.12,862,000 in 1920-21, Rs.6,642,000 in 1921-22.

From Empire Countries : Rs.3,524,000 in 1913-14, Rs.11,110,000 in 1920-21, Rs.6,137,000 in 1921-22.

(*United Kingdom*) : Rs.3,334,000 in 1913-14, Rs.10,692,000 in 1920-21, Rs.5,858,000 in 1921-22.

(Ceylon) : Rs.132,000 in 1913-14, Rs.164,000 in 1920-21, Rs.111,000 in 1921-22.  
 (Australia) : Rs.43,000 in 1913-14, Rs.220,000 in 1920-21, Rs.130,000 in 1921-22.

From Foreign Countries : Rs.476,000 in 1913-14, Rs.1,752,000 in 1920-21, Rs.505,000 in 1921-22.

(Germany) : Rs.233,000 in 1913-14, Rs.50,000 in 1920-21, Rs.83,000 in 1921-22.

(Holland) : Rs.12,000 in 1913-14, Rs.106,000 in 1920-21, Rs.87,000 in 1921-22.

(Japan) : Rs.47,000 in 1913-14, Rs.423,000 in 1920-21, Rs.66,000 in 1921-22.

(United States) : Rs.72,000 in 1913-14, Rs.1,057,000 in 1920-21, Rs.187,000 in 1921-22.

TABLE C 29

## IMPORTS INTO INDIA OF HIDES TANNED OR DRESSED

Total Imports : 2,218 cwt. (Rs.361,000) in 1913-14, 8,360 cwt. (Rs.1,173,000) in 1920-21, 1,900 cwt. (Rs.285,000) in 1921-22.

From Empire Countries : 2,164 cwt. (Rs.353,000) in 1913-14, 8,340 cwt. (Rs.1,150,000) in 1920-21, 1,880 cwt. (Rs.266,000) in 1921-22.

(United Kingdom) : 853 cwt. (Rs.230,000) in 1913-14, 6,800 cwt. (Rs.986,000) in 1920-21, 600 cwt. (Rs.157,000) in 1921-22.

(Ceylon) : 1,306 cwt. (Rs.122,000) in 1913-14, 1,460 cwt. (Rs.146,000) in 1920-21, 1,240 cwt. (Rs.104,000) in 1921-22.

From Foreign Countries : 54 cwt. (Rs.8,000) in 1913-14, 20 cwt. (Rs.23,000) in 1920-21, 20 cwt. (Rs.19,000) in 1921-22.

TABLE C 30

## IMPORTS INTO INDIA OF SKINS TANNED OR DRESSED

Total Imports : 2,558 cwt. (Rs.1,177,000) in 1913-14, 1,320 cwt. (Rs.878,000) in 1920-21, 340 cwt. (Rs.297,000) in 1921-22.

From Empire Countries : 2,256 cwt. (Rs.985,000) in 1913-14, 1,260 cwt. (Rs.741,000) in 1920-21, 280 cwt. (Rs.212,000) in 1921-22.

(United Kingdom) : 2,230 cwt. (Rs.981,000) in 1913-14, 1,240 cwt. (Rs.723,000) in 1920-21, 200 cwt. (Rs.175,000) in 1921-22.

(Australia) : 20 cwt. (Rs.3,000) in 1913-14, 20 cwt. (Rs.17,000) in 1920-21, 20 cwt. (Rs.20,000) in 1921-22.

From Foreign Countries : 302 cwt. (Rs.192,000) in 1913-14, 60 cwt. (Rs.137,000) in 1920-21, 60 cwt. (Rs.85,000) in 1921-22.

(United States) : 33 cwt. (Rs.18,000) in 1913-14, 60 cwt. (Rs.122,000) in 1920-21, Rs.32,000 in 1921-22.

TABLE C 31

## IMPORTS INTO INDIA OF LEATHER UNWROUGHT

Total Imports : 3,302 cwt. (Rs.577,000) in 1913-14, 2,599 cwt. (Rs.1,245,000) in 1920-21, 825 cwt. (Rs.374,000) in 1921-22.  
 From Empire Countries : 3,129 cwt. (Rs.526,000) in 1913-14, 2,179 cwt. (Rs.866,000) in 1920-21, 796 cwt. (Rs.329,000) in 1921-22.  
 (*United Kingdom*) : 2,857 cwt. (Rs.488,000) in 1913-14, 2,074 cwt. (Rs.820,000) in 1920-21, 663 cwt. (Rs.275,000) in 1921-22.  
 (*Australia*) : 237 cwt. (Rs.29,000) in 1913-14, 95 cwt. (Rs.44,000) in 1920-21, 61 cwt. (Rs.49,000) in 1921-22.  
 From Foreign Countries : 173 cwt. (Rs.51,000) in 1913-14, 420 cwt. (Rs.379,000) in 1920-21, 29 cwt. (Rs.45,000) in 1921-22.  
 (*United States*) : 59 cwt. (Rs.11,000) in 1913-14, 414 cwt. (Rs.359,000) in 1920-21, 5 cwt. (Rs.21,000) in 1921-22.

TABLE C 32

## IMPORTS INTO INDIA OF ROLLER SKINS (TOTAL VALUE)

Total Imports : Rs.1,560,000 in 1920-21, Rs.1,684,000 in 1921-22.  
 From Empire Countries : Rs.1,560,000 in 1920-21, Rs.1,671,000 in 1921-22.  
 (*United Kingdom*) : Rs.1,560,000 in 1920-21, Rs.1,671,000 in 1921-22.  
 From Foreign Countries : Rs.13,000 in 1921-22.

TABLE C 33

## IMPORTS INTO INDIA OF PICKING BANDS AND STRAPS (TOTAL VALUE)

Total Imports : Rs.1,861,000 in 1920-21, Rs.829,000 in 1921-22.  
 From Empire Countries : Rs.1,722,000 in 1920-21, Rs.774,000 in 1921-22.  
 (*United Kingdom*) : Rs.1,721,000 in 1920-21, Rs.774,000 in 1921-22.  
 From Foreign Countries : Rs.139,000 in 1920-21, Rs.55,000 in 1921-22.  
 (*Netherlands*) : Rs.58,000 in 1920-21, Rs.34,000 in 1921-22.  
 (*United States*) : Rs.63,000 in 1920-21, Rs.2,000 in 1921-22.

TABLE C 34

## IMPORTS INTO INDIA OF PICKERS (TOTAL VALUE)

Total Imports : Rs.1,229,000 in 1920-21, Rs.1,220,000 in 1921-22.  
 From Empire Countries : Rs.1,181,000 in 1920-21, Rs.1,192,000 in 1921-22.  
 (*United Kingdom*) : Rs.1,181,000 in 1920-21, Rs.1,192,000 in 1921-22.  
 From Foreign Countries : Rs.48,000 in 1920-21, Rs.28,000 in 1921-22.  
 (*Netherlands*) : Rs.46,000 in 1920-21, Rs.23,000 in 1921-22.

TABLE C 35

## IMPORTS INTO INDIA OF BOOTS AND SHOES OF LEATHER

Total Imports : 1,976,361 pairs (Rs.6,865,000) in 1913-14, 660,481 pairs (Rs.9,327,000) in 1920-21, 93,945 pairs (Rs.1,223,000) in 1921-22.  
 From Empire Countries : 1,944,668 pairs (Rs.6,715,000) in 1913-14, 417,013 pairs (Rs.4,972,000) in 1920-21, 73,037 pairs (Rs.857,000) in 1921-22.  
*(United Kingdom)* : 1,928,012 pairs (Rs.6,676,000) in 1913-14, 405,338 pairs (Rs.4,895,000) in 1920-21, 68,222 pairs (Rs.834,000) in 1921-22.  
 From Foreign Countries : 31,693 pairs (Rs.150,000) in 1913-14, 243,468 pairs (Rs.4,355,000) in 1920-21, 20,908 pairs (Rs.366,000) in 1921-22.  
*(United States)* : 7,924 pairs (Rs.68,000) in 1913-14, 220,665 pairs (Rs.4,010,000) in 1920-21, 12,498 pairs (Rs.267,000) in 1921-22.

TABLE C 36

## IMPORTS INTO INDIA OF LEATHER BELTING FOR MACHINERY (TOTAL VALUE)

Total Imports : Rs.2,513,000 in 1913-14, Rs.6,404,000 in 1920-21, Rs.5,292,000 in 1921-22.  
 From Empire Countries : Rs.2,338,000 in 1913-14, Rs.5,352,000 in 1920-21, Rs.4,663,000 in 1921-22.  
*(United Kingdom)* : Rs.2,335,000 in 1913-14, Rs.5,304,000 in 1920-21, Rs.4,647,000 in 1921-22.  
 From Foreign Countries : Rs.175,000 in 1913-14, Rs.1,052,000 in 1920-21, Rs.629,000 in 1921-22.  
*(Germany)* : Rs.54,000 in 1913-14, Rs.1,000 in 1920-21, Rs.6,000 in 1921-22.  
*(Holland)* : Rs.1,000 in 1913-14, Rs.157,000 in 1920-21, Rs.60,000 in 1921-22.  
*(United States)* : Rs.105,000 in 1913-14, Rs.756,000 in 1920-21, Rs.529,000 in 1921-22.

TABLE C 37

## IMPORTS INTO INDIA OF SADDLERY AND HARNESS (TOTAL VALUE)

Total Imports : Rs.502,000 in 1913-14, Rs.706,000 in 1920-21, Rs.183,000 in 1921-22.  
 From Empire Countries : Rs.491,000 in 1913-14, Rs.699,000 in 1920-21, Rs.181,000 in 1921-22.  
*(United Kingdom)* : Rs.482,000 in 1913-14, Rs.671,000 in 1920-21, Rs.159,000 in 1921-22.  
 From Foreign Countries : Rs.11,000 in 1913-14, Rs.7,000 in 1920-21, Rs.2,000 in 1921-22.

TABLE C 38

## IMPORTS INTO INDIA OF LEATHER BAGS AND TRUNKS (TOTAL VALUE)

Total Imports : Rs.293,000 in 1913-14, Rs.748,000 in 1920-21, Rs.125,000 in 1921-22.  
 From Empire Countries : Rs.267,000 in 1913-14, Rs.465,000 in 1920-21, Rs.80,000 in 1921-22.  
*(United Kingdom)* : Rs.265,000 in 1913-14, Rs.423,000 in 1920-21, Rs.77,000 in 1921-22.  
 From Foreign Countries : Rs.26,000 in 1913-14, Rs.283,000 in 1920-21, Rs.45,000 in 1921-22.  
*(Japan)* : Rs.8,000 in 1913-14, Rs.236,000 in 1920-21, Rs.21,000 in 1921-22.  
*(United States)* : Rs.3,000 in 1913-14, Rs.30,000 in 1920-21, Rs.18,000 in 1921-22.

TABLE C 39

## IMPORTS INTO INDIA OF LEATHER MANUFACTURES NOT OTHERWISE SPECIFIED (TOTAL VALUE)

Total Imports : Rs.1,101,000 in 1913-14, Rs.2,552,000 in 1920-21, Rs.1,175,000 in 1921-22.  
 From Empire Countries : Rs.904,000 in 1913-14, Rs.2,080,000 in 1920-21, Rs.989,000 in 1921-22.  
*(United Kingdom)* : Rs.889,000 in 1913-14, Rs.1,961,000 in 1920-21, Rs.933,000 in 1921-22.  
*(Australia)* : Rs.6,000 in 1913-14, Rs.99,000 in 1920-21, Rs.47,000 in 1921-22.  
 From Foreign Countries : Rs.187,000 in 1913-14, Rs.473,000 in 1920-21, Rs.186,000 in 1921-22.  
*(Japan)* : Rs.34,000 in 1913-14, Rs.163,000 in 1920-21, Rs.15,000 in 1921-22.  
*(United States)* : Rs.27,000 in 1913-14, Rs.254,000 in 1920-21, Rs.75,000 in 1921-22.

TABLE C 40

## UNITED STATES. IMPORTS OF GOATSKINS

	No. (000)			10 months ending October, 1923
	1913	1921	1922	
United Kingdom . . . . .	2,550	808	900	1,100
Aden . . . . .	2,583	1,856	2,100	2,500
India . . . . .	16,620	14,881	17,700	21,600
British Africa . . . . .	1,173	1,222	1,900	1,800
Total all Countries . . . . .	22,926	18,767	22,500	27,000

## APPENDIX I

TARIFF ON HIDES AND SKINS EXPORTED FROM INDIA. TARIFF IN OPERATION TOWARD THE  
END OF 1923. RATE OF DUTY, 5 PER CENT

Article.		Unit.	Tariff Valuation per Unit. From Burma. From Rest R.A.P. of India. R.A.P.	
(1)	Arsenicated and Air-dried hides :—			
(a)	Cows (including calfskins) framed	lb.	—	0 9 0
	unframed	lb.	0 5 0	0 5 0
(b)	Buffaloes (including calfskins), framed	lb.	—	0 5 0
	unframed	lb.	0 3 0	0 3 0
(2)	Dry-salted hides :—			
(a)	Cows (including calfskins)	lb.	0 4 0	0 4 0
(b)	Buffaloes " "	lb.	0 2 0	0 2 6
(3)	Wet-salted hides :—			
(a)	Cows (including calfskins)	lb.	0 3 0	0 3 0
(b)	Buffaloes " "	lb.	0 1 6	0 2 0
(4)	Goat and kidskins	piece	1 8 0	1 12 0
(5)	Sheepskins	piece	0 12 0	0 12 0

## APPENDIX II

### LIST OF ASSOCIATIONS CONCERNED WITH HIDES AND SKINS IN INDIA

CALCUTTA HIDE & SKIN SHIPPERS' ASSOCIATION, Calcutta.  
SOUTHERN INDIA HIDE & SKIN SHIPPERS' ASSOCIATION, Madras.  
SIMILAR ASSOCIATIONS at Bombay and Karachi.  
BANGALORE TECHNICAL INSTITUTE.  
GOVERNMENT LEATHER EXPERTS attached to the Governments at Cawnpore, Madras, and Nagpur.

### BIBLIOGRAPHY

#### LITERATURE, TRADE RETURNS, ETC.

- INDIAN MUNITIONS BOARD. *Review of the Trade in Indian Hides and Skins and Leather.* Calcutta. 1919.  
INDIAN HIDE AND SKIN TRADE. Imperial Institute *Bulletin* No. 2. 1918.  
REPORT ON TRADE IN INDIAN MYROBALANS. Imperial Institute. 1922.  
MONOGRAPH ON THE LEATHER INDUSTRY OF THE PUNJAB. 1891-92. By A. J. Grant.  
MONOGRAPH ON TANNING AND WORKING IN LEATHER IN THE UNITED PROVINCES OF AGRA AND OUDH. By H. G. Walton. 1903.  
MONOGRAPH ON TANNING AND WORKING IN LEATHER IN THE CENTRAL PROVINCES. By C. G. Chenevix Trench. 1904.  
TANNING AND WORKING IN LEATHER IN THE PROVINCE OF BENGAL. By R. N. L. Chandra. 1904.  
MONOGRAPH ON TANNING AND WORKING IN LEATHER IN THE PROVINCE OF BURMA. By E. J. Colston. 1904.  
MONOGRAPH ON TANNING AND WORKING IN LEATHER IN THE MADRAS PRESIDENCY. By A. Chatterton. 1905.  
REPORT ON LEATHER INDUSTRIES OF THE BOMBAY PRESIDENCY. By A. Guthrie. 1910.  
A RÉSUMÉ OF THE PROCESS OF TANNING-EXTRACT MANUFACTURE. *The Indian Forest Records.* Vol. III. Issued by the Calcutta Superintendent of Government Printing. 1911.  
TANSTUFF OF THE SINDARBANS FOREST DIVISION. Department of Industries, Bengal. By J. A. Pilgrim, M.S.L.T.C., Tanning Expert to the Government of India.  
INDIAN FORESTER. March, 1923. Article by J. A. Pilgrim. October, 1923. Also OXIDISATION OF TANNINS IN MYROBALANS. Edited at Dehra Dun, United Provinces, India.  
CALCUTTA RESEARCH TANNERY. *Handbook of Tanning.* Issued by the Bengal Secretariat Press at Calcutta. 1922.  
CALCUTTA RESEARCH TANNERY. Report on the Investigation on the Indian Tannery Waters. Bengal Secretariat Press. Calcutta. 1921.  
REPORT OF THE CALCUTTA RESEARCH TANNERY FOR QUARTER ENDING JUNE, 1921. Bengal Secretariat Press. Calcutta. 1921.



- INDIAN TRADE JOURNAL. Published weekly by the Commercial Intelligence Department, India.
- ACCOUNTS OF THE FOREIGN SEABORNE TRADE AND NAVIGATION OF INDIA. Published monthly by the Commercial Intelligence Department, India. This volume gives monthly detailed figures of the imports and exports, specifying countries of destination in considerable detail and comparing figures for the previous two years.
- ACCOUNTS RELATING TO THE SEABORNE TRADE OF BRITISH INDIA FOR THE CALENDAR YEAR. Published annually by the Commercial Intelligence Department. A publication on lines similar to the monthly one, but giving details for the whole of the calendar year, with comparative figures for the previous two years. Published about the middle of February in each year and giving complete figures up to 31st December.
- ANNUAL STATEMENT OF THE FOREIGN SEABORNE TRADE AND NAVIGATION OF BRITISH INDIA. Vol. I. Abstract and detailed tables of Imports and Exports. Vol. II. Abstract and detailed tables of trade and shipping with each country and at each port, and table relating to the trade of Aden and of the French and Portuguese Possessions of India. These volumes contain the greatest possible details of the import and export trade in Indian Hides, Skins, Leather, etc.
- PRICES AND WAGES IN INDIA. Published annually by the Commercial Intelligence Department, and gives particulars of prices of Hides and Skins.
- STATISTICS OF BRITISH INDIA. Vol. I. Commercial Statistics published annually by the Commercial Intelligence Department. Containing Statistics of Import and Export Trade, etc.
- AGRICULTURE STATISTICS OF INDIA. Vol. I. British India. Vol. II. Indian States. Containing particulars of Live Stock, etc. Published annually by the Commercial Intelligence Department.
- SUMMARY TABLES OF THE AGRICULTURAL STATISTICS OF BRITISH INDIA. Published annually by the Commercial Intelligence Department.
- INDEX NUMBERS OF INDIAN PRICES FROM 1861-1918. Giving records of prices of Hides and Skins. Published by the Commercial Intelligence Department, India.
- REPORT ON FIRST CENSUS OF LIVE STOCK, 1919-20. Published by the Commercial Intelligence Department.

SECTION D  
CANADA

## LIST OF TABLES IN SECTION D

TABLE NO.	PAGE
D 1. CATTLE AND SHEEP STOCKS AND SLAUGHTERINGS, 1911 AND 1922 .	202
D 2. CATTLE HIDES, IMPORTS . . . . .	202
D 3. CALFSKINS AND KIPS, IMPORTS . . . . .	202
D 4. SHEEPSKINS, IMPORTS . . . . .	203
D 5. HIDES AND SKINS, NOT OTHERWISE SPECIFIED, IMPORTS . . . . .	203
D 6. HIDES AND SKINS, IMPORTS, TOTAL FIGURES . . . . .	203
D 7. HIDES, SKINS, AND OTHER MATERIALS USED IN TANNERIES . . . . .	204
D 8. HIDES AND SKINS TREATED FOR CUSTOMERS . . . . .	206
D 9. PRODUCTION OF TANNERIES . . . . .	207
D 10. LEATHER, ETC., IMPORTS OF . . . . .	209
D 11. LEATHER, ETC., EXPORTS OF . . . . .	209
D 12. SOLE LEATHER, IMPORTS . . . . .	210
D 13. BELTING LEATHER, IMPORTS . . . . .	210
D 14. HARNESS LEATHER, IMPORTS . . . . .	210
D 15. PATENT AND JAPANNED LEATHER, IMPORTS . . . . .	210
D 16. MOROCCO LEATHER, IMPORTS . . . . .	210
D 17. TANNED CALF-, GOAT-, AND SHEEPSKINS, IMPORTS . . . . .	211
D 18. DRESSED CALF-, GOAT-, AND SHEEPSKINS, IMPORTS . . . . .	211
D 19. UPPER LEATHER, IMPORTS . . . . .	211
D 20. UPPER LEATHER, IMPORTS . . . . .	211
D 21. GLOVE LEATHER, IMPORTS . . . . .	212
D 22. DRESSED LEATHER, NOT OTHERWISE SPECIFIED, IMPORTS . . . . .	212
D 23. LEATHER, NOT OTHERWISE SPECIFIED, IMPORTS . . . . .	212
D 24. SOLE LEATHER, EXPORTS . . . . .	212
D 25. UPPER LEATHER, EXPORTS . . . . .	213
D 26. HARNESS LEATHER, EXPORTS . . . . .	213
D 27. LEATHER, NOT OTHERWISE SPECIFIED, EXPORTS . . . . .	213
D 28. BOOTS AND SHOES, PRODUCTION . . . . .	214
D 29. BOOTS AND SHOES, IMPORTS . . . . .	214
D 30. BOOTS AND SHOES, IMPORTS . . . . .	214
D 31. BOOTS AND SHOES, EXPORTS . . . . .	215
D 32. HARNESS AND SADDLERY, IMPORTS . . . . .	215
D 33. HARNESS AND SADDLERY, EXPORTS . . . . .	215
D 34. LEATHER GLOVES AND MITTS, EXPORTS . . . . .	216
D 34a. LEATHER GLOVES AND MITTS, IMPORTS . . . . .	216
D 35. LEATHER BELTING, IMPORTS . . . . .	216
D 36. LEATHER BELTING, EXPORTS . . . . .	216
D 37. LEATHER MANUFACTURES, NOT OTHERWISE SPECIFIED, IMPORTS . . . . .	217
D 38. LEATHER MANUFACTURES, NOT OTHERWISE SPECIFIED, EXPORTS . . . . .	217

# LIST OF TABLES IN SECTION D

189

TABLE NO.	PAGE
D 39. TANNING EXTRACTS, IMPORTS . . . . .	217
D 39a HEMLOCK EXTRACT, EXPORTS . . . . .	218
D 40. MISCELLANEOUS LEATHER MATERIALS, IMPORTS AND EXPORTS . . . . .	218
D 41. HIDES AND SKINS, IMPORTS INTO UNITED STATES FROM CANADA . . . . .	218
D 42. LEATHER AND LEATHER MANUFACTURES, IMPORTS INTO UNITED STATES FROM CANADA . . . . .	219
D 43. LEATHER AND LEATHER MANUFACTURES, EXPORTS FROM UNITED STATES TO CANADA . . . . .	220
D 44. HIDES AND SKINS, EXPORTS FROM UNITED STATES TO CANADA . . . . .	220



## SECTION D

### CANADA

CANADA does not stand out so prominently as the other Dominions as a producer of the raw materials required for the leather industry. A substantial quantity of Canadian hides go over the border into the United States (more than counterbalanced, however, by the corresponding movement in the opposite direction), but otherwise there is very little export of hides, skins, and tanning materials from Canada. On the other hand, Canada has an important leather industry—second only to that of Great Britain among Empire countries.

#### HIDES

The total number of cattle in Canada in 1911 was 6,650,000, while in 1921 the total was 10,200,000, an increase of more than 50 per cent in the decade. Of the last-mentioned number, 3,740,000 were cows. Up to 1921 the number of animals slaughtered in Canada were ascertained for each of the decennial census years. Since 1919 statistics of animals slaughtered have been collected annually through the Dominion Department of Statistics. Table D 1 shows the number of living cattle on June 1st each year, and the number of cattle slaughtered in the year for 1911 and 1919-22. The proportion slaughtered, according to the figures in Table D 1, is below the corresponding proportions found elsewhere, especially for the post-War years, and it is probable that the annual returns now obtained understate the actual slaughtering. As an indication of the hide supplies the figures are defective, inasmuch as they do not include "casualties." In Great Britain the number of hides arising from casualties is substantial (5 per cent), and it is not likely that a lower percentage holds for Canada.

In the past four years statistics have been obtained by the Dominion Bureau of Statistics of the number of domestic cattle hides and calfskins used in Canadian tanneries and shown in the Annual Report on the Leather Industry issued by the Bureau, but not printed for general circulation. For 1918, 1921, and 1922 the numbers used in the tanneries were :—

	1918	1921	1922
Cattle hides . . . . }	1,292,000	768,000	912,000
Horse-hides . . . . }		7,000	6,000
Calf- and kipskins . . . .	897,000	395,000	374,000
Total . . . .	2,189,000	1,170,000	1,292,000

On the basis of these figures there was a surplus of about 1,150,000 domestic

hides and calfskins to be accounted for in 1921 and 600,000 in 1922. It is not possible from the Canadian returns to compare these figures with actual detailed export statistics, since the latter are published for the twelve months ending 31st March each year, and not for the calendar year. In view of the fact that practically all Canada's exports of hides and calfskins go to the United States, the official figures for the latter country may be referred to. These are shown in Tables D 41-44, and show that for 1921 the exports of green pickled hides and calfskins totalled 1,133,000 and of dry hides and skins, 237,000. In view of the fact that the latter probably included some foreign hides and skins subsequently re-exported, and that in the surplus previously referred to casualty hides and skins are not included, the agreement is fairly satisfactory.

Some information enabling the conversion from numbers to weights to be made is obtained from the quarterly returns published by the Dominion Statistician of stocks of hides and skins in the hands of factors, dealers, importers, and tanners. Taking the figures for 1st October, 1922, when the proportion of foreign skins included was small, the following average weights of the various classes of hides and skins are obtained :—

	Average Weight (lb.)
Steer-hides . . . . .	50·5
Cow-hides . . . . .	47·3
Bull-hides . . . . .	80·3
Horse-hides . . . . .	44·7
Calfskins . . . . .	9·0
Kipskins . . . . .	17·6
Sheepskins, woolled . . . . .	8·6
„ pickled . . . . .	2·7

The value of the cattle hides exported in 1921 was \$3,957,000. All but 1,300 of the cattle hides, valued at \$15,000 (which came to the United Kingdom), went to the United States. In addition hides and skins, not particularised, to the value of \$277,000 were exported, and of these \$268,000 went to the United States.

In the past year substantial numbers of Canadian cattle have been exported to the United Kingdom, and the hides from these cattle have become available for tanners in the United Kingdom as the animals have been slaughtered.

Table D 2 shows in detail particulars of cattle hides imported in the fiscal year ending March 31st, 1921, no pre-War figures being available. The total imports of these hides exceeded \$6,300,000, of which nearly one-half came from the United States, 20 per cent from Argentine, and substantial quantities from New Zealand, Uruguay, France, and United Kingdom.

The corresponding figures of imports of calfskins are shown in Table D 3. The total value was nearly \$1,900,000, more than one-half of which was from France, with large quantities also from the United States and New Zealand.

It is possible that the figures of some cattle hides and calfskins have been included in Table D 5, which shows the imports of hides and skins not otherwise particularised, though no doubt the bulk of the figures in that table relate

## CANADA

193

TO GOVERNMENT. TABLE D 7 gives the numbers, weights, and values of the hides and skins, both domestic and foreign, used in tanneries in 1921 and 1922. A short summary of the figures for cattle hides and skins is as follows:—

		1921	1922
Domestic hides . . . . .	No.	775,000	918,700
Foreign " . . . . .	"	401,400	448,700
All hides, value . . . . .	\$	7,770,000	9,063,000
Domestic calf- and kipskins . . . . .	No.	395,000	374,000
Foreign calf- and kipskins . . . . .	"	532,000	608,000
Total calf- and kipskins, value . . . . .	\$	2,117,000	1,978,000

Canada receives about one-third of the cattle hides she tans from foreign countries, but nearly 60 per cent of the calfskins tanned are imported. It must be remembered, however, that in certain cases the passage of hides and skins from a Canadian source of supply to a tannery in the United States is easier than to a tannery in Canada and *vice versa*, and much of the trade in hides and calfskins between Canada and the United States is not in the nature of "foreign" trade as the term is used in the United Kingdom.

### SHEEPSKINS

In proportion to its size, Canada has only a small number of sheep. The figures of numbers and of slaughterings for each of the years 1911 and 1919-22 are shown in Table D 1. Canada shows a phenomenon almost unique in the increase of sheep between 1911 and 1921—see Tables A 1 and 2 of Section A—but the total number is still small in proportion to the number in many of the countries.

No information is available of pre-War export of sheepskins, but in the fiscal year ending March 31st, 1921, Canada exported 43,400 cwt., valued at \$498,000, entirely to the United States. The United States' returns (see Table D 41) indicate that for the calendar year 1921 the number of skins imported from Canada was 740,000, of value \$272,000. Particulars of the imports of sheepskins are given in Table D 4, but no differentiation is possible in that table between pickled skins and woolled skins, and in view of the large difference in average weights of pickled and woolled skins, it is not possible accordingly to deduce the number of skins imported. More than one-half of the skins by weight, and about two-thirds by value, came from New Zealand. One-third by weight, but 22 per cent by value, came from the United States. Appreciable quantities are also imported from South Africa, Australia, and the United Kingdom.

Table D 7 gives the numbers, weights, and values of the sheepskins, both domestic and foreign, used in tanneries in 1921 and 1922. A short summary of the figures regarding sheepskins from this table is as follows:—

		1921	1922
Domestic sheepskins, doz. . . . .		35,800	66,500
Foreign " " . . . . .		43,100	46,000
Total sheepskins, value, \$ . . . . .		428,000	447,000



Taken over the two years, more than half the skins tanned were of Canadian origin.

### GOATSKINS

The import statistics do not separately specify goatskins, and the only figures available indicating the consumption (which is also the importation, as there are very few native goats) are those in Table D 7. A summary of these is as follows :—

	1921	1922
Number of goatskins, tanned, doz. .	27,300	61,100
Value           "           "   \$ .	488,000	500,000

It is impossible to produce a satisfactory statement summarising the figures (by value only) of (a) production, (b) imports, (c) exports, and (d) consumption of hides and skins in Canada. The surest foundation to start with for drawing up such a summary is the value of (a) as given in Table D 7, viz. \$11,577,000. The statistics of imports and exports are available, however, only for the fiscal years, and as the figures were very unstable during the period under review, it is unsafe to take those for the fiscal period instead of those for the calendar year. Since practically all the exports are to the United States, however, Table D 41, which gives the value of imports of hides and skins into the United States from Canada for 1921, fixes the value of (c) at approximately \$3,600,000. For the determination of the value of the production for 1921 we have (see above) the number of cattle (2,000,000) and sheep (1,600,000) and Table D 41 shows that the average value of the imports into the United States from Canada were (in United States dollars), (a) for green cattle hides, \$3·8 per hide; (b) for green calfskins, \$1·3 per skin, and for green pickled sheepskins, \$0·4 per skin. On this basis, and making some allowance for the difference in the currency and for casualty hides and skins, the total value of the production for 1921 would appear to be about \$8,000,000. For 1913 the corresponding value would appear to be about \$10,000,000, but the basis of calculation is not a satisfactory one. Values of Canadian hides in 1921 were substantially below those in 1913.

### TANNING MATERIALS

Canada imports but little crude tanning materials (see Table D 40), the total value in the fiscal year ending March 31st, 1921, being \$22,000. She exports a certain quantity of bark to the United States, amounting in the fiscal year mentioned to \$37,000. She is, however, a large importer of tanning extracts (see Table D 38). Most of this comes from the United States, but substantial quantities come from the Straits Settlements (gambier), Argentine (quebracho), and the United Kingdom (various).

Canada exports hemlock extract, chiefly to the United Kingdom, the value in 1920-21 being \$34,000. The consumption of tanning bark in the calendar year 1921 was \$460,000, and of tanning extracts, \$1,720,000.

## LEATHER PRODUCTION

The reports which have been drawn up, but not published, in recent years by the Dominion Bureau of Statistics give a most comprehensive view of the Canadian leather industry, the best in any of the Empire countries. If the import and export statistics could be collected on the same basis as that adopted in the report it would be difficult to suggest improvement for the purpose of getting a complete survey of the industry.

The report for 1922 showed that there were in the whole of Canada 116 tanneries in 1922, compared with 119 in 1921 and 100 in 1920. (These figures include what would be known in the United Kingdom as curriers and leather dressers.) These establishments were distributed among the different provinces as follows :—

Quebec . . . . .	65
Ontario . . . . .	39
Nova Scotia . . . . .	3
Alberta . . . . .	3
Manitoba . . . . .	2
New Brunswick . . . . .	2
British Columbia . . . . .	2

The increase in comparison with 1920 was almost entirely in Quebec.

The total cost of materials and value of production in 1921 and 1922 were :—

	1921 \$(000)	1922 \$(000)
Value of production . . . . .	22,906	24,292
Cost of materials . . . . .	15,157	15,755
	(66 per cent)	(65 per cent)

Table D 7 shows for 1921 and 1922 many details concerning quantities and values of hides, skins, and other materials used in leather production. Reference has already been made to certain features of this table, which can be summarised as follows :—

	1921		1922	
	\$(000).	Per cent.	\$(000).	Per cent.
Hides and skins . . . . .	11,576	76	12,491	79
Tanning materials . . . . .	2,544	17	2,262	15
Chemicals, dyes . . . . .	605	4	490	3
Fats and oils . . . . .	432	3	512	3
Total . . . . .	15,157	100	15,755	100

Table D 8 shows for 1922 particulars of work done on hides and skins on commission for customers who provide the hides and skins. The total value added to the material by this work was \$580,000, from which it may be inferred that the approximate value of the hides, skins, and rough-tanned leather worked upon was about \$600,000 and the materials used about \$200,000, producing

leather to the value of about \$1,200,000. For 1921 the detailed figures are not available, but the total amount received was \$640,000, indicating a value of about \$650,000 for the hides, skins, and rough-tanned leather, and \$220,000 for the materials and \$1,300,000 as the value of the leather produced. Table D 9 reproduces in complete detail a table from the report showing for 1920, 1921, and 1922 particulars of production of the various classes of leather and other materials derived from the hides and skins. This table gives the most comprehensive statement of production of any compiled for any country of the Empire, and deserves to be a model which the other Empire countries could copy. Special reference should be made to that table for particulars of the various classes of sole leather, upper leather, etc., produced. A short summary of the table by quantity (for certain items) and by value is as follows :—

		Production of Leather, etc. (Quantity)		
		1920	1921	1922
Sole leather.	Tons of 2,240 lb.	12,900	10,500	12,000
Upper leather.	Feet (000)	40,990	35,200	43,300
Upholstery leather.	Feet (000)	4,012	1,465	2,586
Belting and harness leather.	Tons of 2,240 lb.	2,600	1,900	2,300
Hair.	Tons of 2,240 lb.	1,200	900	1,300
Glue stock.	Tons of 2,240 lb.	6,500	5,200	7,900

		Production of Leather, etc. Value (\$000)		
		1920	1921	1922
Sole leather . . . . .		16,401	8,033	9,175
Upper leather . . . . .		14,409	9,642	10,372
Upholstery leather . . . . .		1,335	411	526
Belting and harness leather . . . . .		4,670	2,195	2,020
Hair . . . . .		102	63	88
Glue stock . . . . .		168	117	119
Value of total production, making allowance for value of goods tanned on commission . . .		40,000	23,500	25,000

#### LEATHER IMPORTS AND EXPORTS

A summary of the imports of various classes of leather, by value, is given in Table D 10 for the years 1920, 1921, and 1922, taken from the Report of the Dominion Bureau of Statistics previously referred to. The detailed figures of imports published relate to the 12 months ending 31st March each year, and in the period under review there was considerable difference between one year and the next. The two sets of figures therefore are not comparable, and in view of the fact that the latest available detailed figures relate to the year ending March 31st, 1921, the summary figures have also been set out in full. Similarly Table D 11 gives a summary, by value, of the exports of leather in 1920, 1921, and 1922. By the aid of the figures for imports and

exports and the previous figures of production, the following summary of the Canadian leather position can be drawn up :—

	1920	1921 Value \$(000)	1922
Production . . . . .	40,000	23,500	25,000
Imports . . . . .	8,500	4,100	3,800
Exports . . . . .	7,700	4,000	5,100
Consumption . . . . .	40,800	23,600	23,700

The class of leather imported to the greatest extent into Canada is "dressed calf, goat, and sheep" leather. Most of this comes from the United States, and the official returns of exports of that country indicate that the bulk of it is glacé kid upper leather. The next biggest item is glove leather, but the amount of sole leather is comparatively small. The details of leather imports for the fiscal years ending March 31st, 1913 and 1921, are shown in Tables D 12-23.

Most of the leather imported comes from the United States or the United Kingdom, the former having the biggest share. In view of the importance of the United States trade with Canada, the information included in Table D 43 has been collected. This table shows the exports from the United States into Canada in 1913 and 1921 of many classes of leather and leather goods. As there is practically no time lag to take into account, the sets of figures in Table D 11 and in Table D 43 are directly comparable, regard being had to the difference in currencies. The form of classification used in the figures of the United States is more useful than that for Canada, and indicates, for example, a much larger import of glacé kid into Canada in 1921 than in 1913.

A few comments on the detailed Tables D 12-24 may be made here. Table D 12 shows that practically all the sole leather imported in 1920-21 came from the United States, and a comparison with the production figures previously referred to shows that the importation is about 3 per cent of the production. In 1912-13 the imports of sole leather from the United Kingdom were greater than those from the United States. Table D 13 indicates that about 90 per cent of the leather for the manufacture of belting comes from the United Kingdom; the bulk of the leather for harness, however, comes from the United States (Table D 14). The predominance of the United States is especially marked in dressed leathers and in tanned skins. In patent leather she supplied nearly 90 per cent of Canada's imports (Table D 15); in morocco leather 80 per cent (Table D 16); in rough-tanned calf-, sheep-, and goatskins more than 90 per cent (Table D 17); in dressed calf-, sheep-, and goatskins 90 per cent (Table D 18); in upper leather 50 per cent (Tables D 19 and 20); and in glove leather over 90 per cent (Table D 21). Altogether 80 per cent of Canada's leather imports came from the United States.

The details of leather exports from Canada for the fiscal years ending March 31st, 1913 and 1921, are shown in Tables D 24-27. Nearly 70 per cent in 1921 of Canada's exports went to the United States, and Table D 42 shows the United States official figures of imports of leather and leather goods from Canada.

## LEATHER, HIDES, AND SKINS

The chief exports are sole leather and upper leather. In 1913 most of the former (85 per cent) came to this country, but in 1921 less than 20 per cent came here, 60 per cent going to the United States (Table D 24). The upper leather, the exports of which increased considerably between 1913 and 1921, came chiefly to the United Kingdom (Table D 25). Over 90 per cent of the harness leather exported went to the United States (Table D 26). Of the leathers not specified, nearly 90 per cent came to the United Kingdom in 1913, but only 15 per cent in 1921. In the latter year 80 per cent went to the United States (Table D 27).

## LEATHER BOOT AND SHOE INDUSTRY

Boot and shoe manufacturing is probably the oldest industry established in Canada. In the Report by the Dominion Bureau of Statistics on the Leather Boot and Shoe Industry in Canada in 1921 an interesting historical review of the industry is given, leading up to a description of the industry in 1921. In that year there were 177 factories (of which 98 were in Quebec and 66 in Ontario) producing between them 15,047,000 pairs of boots, etc. Of these 127 produced less than 100,000 pairs each; 32 more, between 100,000 and 200,000 pairs each; 8 more, between 200,000 and 300,000 pairs; while 3 exceeded 400,000 pairs each.

The value of the production in 1920 was returned as \$66,817,000, while the cost of the materials used was \$40,292,000.

Details of the production of boots, shoes, etc., are given in Table D 28, from which it will be seen that the production covered the whole range of footwear, and had a factory value of \$66,817,000 (for 17,694,000 pairs) in 1920 compared with \$44,665,000 (for 14,746,000 pairs) in 1921. Some particulars of the materials used in the industry in 1921 are as follows:—

	Value \$
Upper materials . . . . .	12,357,000
Bottom „ . . . . .	6,860,000
All other „ . . . . .	4,162,000
Total value of materials . . . . .	23,379,000
Leather for uppers and linings (feet) . . . . .	29,349,000
Leather for uppers (lb.) . . . . .	1,234,000
Sole leather (lb.) . . . . .	11,097,000
Cut soles (pairs) . . . . .	4,003,000

Canada produces a large number of rubber boots and shoes, the total in 1921 being 11,057,000 pairs, valued at \$14,315,000. The number of pairs is 75 per cent of the corresponding number of leather boots, but the value is only one-third of that of the latter. Details of the imports and exports of boots and shoes are given in Tables D 29 and 31. Nearly 90 per cent of the imports are from the United States. The exports increased enormously between 1912-13 and 1921-22, and more than 60 per cent of the exports in the latter year came

to the United Kingdom. In the following year, however, the figures fell away considerably (Table D 31). Comparison (by value) of the imports and exports with the production leads to the following :—

		Leather Boots and Shoes.	
		Value \$(000)	
		1920	1921
Production . . . . .		66,817	44,665
Imports . . . . .		2,638	1,327
Exports . . . . .		3,352	335
Consumption . . . . .		66,103	45,657

		Rubber Boots and Shoes.	
		Value \$(000)	
		1920	1921
Production . . . . .		24,332	14,315
Imports . . . . .		328	95
Exports . . . . .		1,633	802
Consumption . . . . .		23,027	13,608

The consumption of rubber boots is, in value, about one-third of that of leather boots and shoes.

#### HARNESS AND SADDLERY

No later report than that of 1919 is available concerning the harness and saddlery industry. In that year there were 593 establishments employing 2,089 workpeople, with a total wage roll during the year of \$1,775,000. These figures all showed a substantial advance on those of the previous year. The cost of the materials used in the year was \$4,813,000, and the value of the products was \$8,611,000.

The imports and exports of harness and saddlery are set out in Tables D 32 and 33. In 1912-13 the imports very largely exceeded the exports, but in 1920-21 the two movements practically balanced, and most of the business was with the United States. The actual figures of the imports in that year were \$124,086 and of the exports \$144,786. It would follow that the consumption of harness and saddlery was approximately equal to the production which, as stated above, was \$8,611,000 in 1919.

#### TRUNKS, BAGS, ETC.

Particulars are available regarding the manufacture of trunks, bags, and valises through the census taken by the Dominion Bureau of Statistics relating to 1920, with corresponding figures for 1919. The number of factories increased from eight in 1919 to thirteen in 1920, the capital invested from \$1,560,000 to \$2,460,000, the number employed from 545 to 876, the salaries and wages from \$485,000 to \$889,000, the cost of materials used from \$1,067,000 to \$1,705,000, and the value of the product from \$1,914,000 to \$3,260,000.

## LEATHER, HIDES, AND SKINS

The values of the main products in 1920 were :—

	\$
Trunks . . . . .	1,318,000
Valises and suit-cases . . . . .	1,016,000
Club-bags and hand-bags . . . . .	702,000
Other products . . . . .	224,000
Total . . . . .	3,260,000

The exports and imports of these goods are not separately specified.

## LEATHER GLOVES

A census of the glove industry was also taken in 1920 by the Bureau of Statistics. Out of fifty-four establishments making gloves, fifty used leather as the principal material. These had a capital of \$4,000,000 and employed 1,982 people, who received in salaries and wages \$1,627,000, and produced products valued at \$5,774,000 from materials valued at \$3,088,000. Out of this last figure, \$2,434,000 (80 per cent) was leather, comprising the following :—

	\$
Sheepskins . . . . .	1,139,000
Horse-hides . . . . .	402,000
Deerskin . . . . .	220,000
Kid- and lambskins . . . . .	224,000
All other skins . . . . .	449,000
Total leather . . . . .	2,434,000

The statistics of articles produced separated dress gloves from working gloves. The former accounted for 121,000 dozen pairs, of value \$2,520,000, and the latter for 103,000 dozen pairs, of value \$2,805,000, these two items together accounting for \$5,325,000 out of the total production of \$5,774,000.

Details of the exports of leather gloves in 1920-21 are shown in Table D 34. They totalled \$73,000, spread over a number of countries. Table D 43 shows that the exports of gloves from the United States to Canada was less than 10,000 pairs, of value \$9,300. For the calendar year 1920, the Report of the Production Census gave the total imports at \$860,000 and the exports at \$92,000.

## OTHER LEATHER GOODS

In addition to the reports of Censuses of Production already referred to, a report was also issued covering the production for 1920 of factories not classified into any of the previous headings, but whose production includes to some extent some of those already mentioned. To complete the view of the Canadian leather industry, the figures relating to these factories can be given. The number of these factories increased from twenty-eight in 1919 to thirty-one in 1920, but the capital employed diminished from \$1,487,000 to \$866,000. The number of people employed fell from 764 to 557, the wages and salaries from

\$636,000 to \$518,000, the cost of materials from \$1,066,000 to \$830,000, and the value of the products from \$1,241,000 to \$900,000. Of the \$830,000 of materials used, \$478,000 was leather, and \$30,000 imitation leather.

The only other leather article specified in the import and export returns is leather belting. There is an appreciable amount of this imported (see Table D 34) mainly from the United States, but a very small export (Table D 35). Particulars of the imports of leather manufactures not specified are shown in Table D 36; 70 per cent of these came from the United States, and over 20 per cent in 1920-21 from the United Kingdom. The corresponding exports (Table D 37) went almost entirely to the United States. The total value of the exports in 1920-21 amounted to \$1,943,000.

This part of the subject may be amplified by reproducing from the *Canadian Year Book* for 1921 the following figures relating to the production of leather and its finished products.

	No. of Establish- ments.	Capital, \$(000)	Employees on Wages and Salaries.	Wages and Salaries, \$(000)	Cost of Materials, \$(000)	Value of Products, \$(000)
Belting and hose leather . . . .	7	1,394	223	185	1,028	1,718
Boots and shoes . . . . .	146	30,881	15,718	8,380	18,980	34,065
Boot and shoe repairs . . . . .	127	153	204	103	84	328
" " supplies . . . . .	8	184	116	50	108	186
Harness and saddlery . . . . .	102	5,747	1,771	1,392	5,595	8,739
Leather tanned, curried and finished	106	19,688	3,597	2,183	18,124	23,655
" goods . . . . .	25	2,004	868	496	1,188	2,179
Whips . . . . .	3	218	89	58	95	167
Total . . . . .	524	60,269	22,586	12,847	45,202	71,037

Excluding the items for boot and shoe repairs and boot and shoe supplies, and adding to the above the corresponding figures for leather gloves, the total cost of materials and value of products is as follows :—

	Cost of Materials, \$(000)	Value of Products, \$(000)
Leather production . . . . .	18,100	23,700
Boots and shoes . . . . .	19,000	34,100
Other leather goods . . . . .	11,000	18,500
Total . . . . .	48,100	76,300

The approximate figures for consumption of leather goods are accordingly as follows :—

	\$(000)
Production . . . . .	52,600
Imports . . . . .	3,400
Exports . . . . .	1,900
Consumption . . . . .	54,100



## LEATHER, HIDES, AND SKINS

TABLE D 1  
STATISTICS OF CATTLE AND SHEEP STOCKS AND SLAUGHTERINGS, 1911-22

CATTLE				
Year.	No. of Cattle.	Cattle.	No. slaughtered. Calves.	Total.
1911 <sup>1</sup>	6,650,000	—	—	1,753,000
1919	10,090,000	1,438,000	454,000	1,891,000
1920	9,480,000	1,329,000	447,000	1,775,000
1921 <sup>2</sup>	10,210,000	1,513,000	504,000	2,017,000
1922	9,720,000	1,393,000	507,000	1,899,000

SHEEP				
Year:	Number.	Sheep.	No. slaughtered. Lambs.	Total.
1911	2,228,000	—	—	949,000
1919	3,422,000	1,020,000	340,000	1,360,000
1920	3,721,000	1,120,000	373,000	1,493,000
1921	3,676,000	1,177,000	392,000	1,569,000
1922	3,264,000	1,039,000	346,000	1,385,000

<sup>1</sup> 2,595,000 of the cattle were cows.

<sup>2</sup> 3,737,000 of the cattle were cows.

TABLE D 2  
IMPORTS INTO CANADA OF CATTLE HIDES, RAW, WHETHER DRY-SALTED  
OR PICKLED

Total Imports : 19,054,909 lb. (\$6,340,013) in 1921.

From Empire Countries : 3,043,633 lb. (value not available) in 1921.

(United Kingdom) : 474,750 lb. (\$213,247) in 1921.

(British India) : 146,681 lb. (\$97,973) in 1921.

(New Zealand) : 2,290,001 lb. (\$723,136) in 1921.

From Foreign Countries : 16,011,276 lb. (\$5,280,633) in 1921.

(Argentina) : 3,925,452 lb. (\$1,291,834) in 1921.

(France) : 851,662 lb. (\$349,350) in 1921.

(Dutch East Indies) : 136,922 lb. (\$102,856) in 1921.

(United States) : 9,364,224 lb. (\$3,057,835) in 1921.

(Uruguay) : 1,621,604 lb. (\$430,441) in 1921.

Note : Corresponding figures for 1913 or any pre-War year are not available.

TABLE D 3  
IMPORTS INTO CANADA OF CALFSKINS AND KIPS, RAW, WHETHER  
DRY-SALTED OR PICKLED

Total Imports : 3,139,130 lb. (\$1,867,387) in 1921.

From Empire Countries : 522,706 lb. (\$314,951) in 1921.

(Australia) : 78,502 lb. (\$44,267) in 1921.

(New Zealand) : 433,036 lb. (\$267,670) in 1921.

# CANADA

203

From Foreign Countries : 2,616,424 lb. (\$1,552,436) in 1921.

(France) : 1,167,862 lb. (\$986,074) in 1921.

(United States) : 1,397,652 lb. (\$540,924) in 1921.

Note : Corresponding figures for 1913 or any pre-War year are not available.

TABLE D 4.

## IMPORTS INTO CANADA OF SHEEPSKINS, RAW, WHETHER DRY-SALTED OR PICKLED

Total Imports : 2,070,758 lb. (\$972,490) in 1921.

From Empire Countries : 1,396,525 lb. (\$758,653) in 1921.

(United Kingdom) : 87,323 lb. (\$28,649) in 1921.

(British South Africa) : 131,633 lb. (\$51,412) in 1921.

(Australia) : 93,034 lb. (\$42,755) in 1921.

(New Zealand) : 1,082,183 lb. (\$633,869) in 1921.

From Foreign Countries : 674,233 lb. (\$213,837) in 1921.

(United States) : 672,119 lb. (\$213,134) in 1921.

Note : Corresponding figures for 1913 or any pre-War year are not available.

TABLE D 5

## IMPORTS INTO CANADA OF OTHER HIDES AND SKINS, RAW, NOT OTHERWISE PARTICULARISED, WHETHER DRY-SALTED OR PICKLED

Total Imports : 2,226,638 lb. (\$1,431,088) in 1921.

From Empire Countries : 796,173 lb. (\$816,938) in 1921.

(United Kingdom) : 447,916 lb. (\$249,242) in 1921.

(British India) : 216,731 lb. (\$419,599) in 1921.

(Jamaica) : 67,898 lb. (\$46,105) in 1921.

(Australia) : 25,253 lb. (\$45,325) in 1921.

(New Zealand) : 28,043 lb. (\$50,759) in 1921.

From Foreign Countries : 1,430,465 lb. (\$614,150) in 1921.

(France) : 41,918 lb. (\$20,409) in 1921.

(United States) : 1,371,551 lb. (\$582,695) in 1921.

Note : Corresponding figures for 1913 or any pre-War year are not available.

TABLE D 6

## TOTAL IMPORTS INTO CANADA OF HIDES AND SKINS, RAW, WHETHER DRY-SALTED OR PICKLED

Total Imports : \$13,305,471 in 1913, \$10,652,787 in 1921.

From Empire Countries : \$3,071,790 in 1913, \$2,949,929 in 1921.

(United Kingdom) : \$1,227,044 in 1913, \$492,734 in 1921.

(Australia) : \$79,589 in 1913, \$132,356 in 1921.

(British South Africa) : \$93,529 in 1913, \$51,412 in 1921.

(British India): \$336,197 in 1913, \$517,572 in 1921.

( " West Indies): \$73,340 in 1913, \$16,316 in 1921.

(New Zealand): \$1,244,136 in 1913, \$1,675,434 in 1921.

(Jamaica): none in 1913, \$55,589 in 1921.

From Foreign Countries: \$10,233,681 in 1913, \$7,703,858 in 1921.

(Argentina): \$3,986,450 in 1913, \$1,316,850 in 1921.

(France): \$1,922,120 in 1913, \$1,355,891 in 1921.

(Germany): \$148,415 in 1913.

(Holland): \$47,369 in 1913.

(Mexico): \$64,499 in 1913, \$22,089 in 1921.

(Russia): \$544,218 in 1913.

(United States): \$3,161,663 in 1913, \$4,436,390 in 1921.

(Uruguay): \$153,811 in 1913, \$430,441 in 1921.

(Dutch East Indies): \$102,857 in 1921.

TABLE D 7

HIDES, SKINS AND OTHER MATERIALS USED IN ESTABLISHMENTS ENGAGED IN THE  
CANADIAN LEATHER INDUSTRY, 1921 AND 1922

	Unit.	1921	1922
Cattle Hides—			
Foreign . . . . .	No.	401,424	448,710
Domestic . . . . .	"	768,260	912,301
Total . . . . .	"	1,169,684	1,361,011
" weight . . . . .	lb.	51,068,229	59,368,727
" cost . . . . .	\$	7,748,308	9,040,111
Horse Hides—			
Domestic . . . . .	No.	6,777	6,441
Weight . . . . .	lb.	337,490	317,980
Cost . . . . .	\$	22,042	21,922
Calf- and Kipskins—			
Foreign . . . . .	No.	531,502	608,254
Domestic . . . . .	"	395,063	373,754
Total . . . . .	"	926,565	982,008
" weight . . . . .	lb.	9,000,000	9,052,880
" cost . . . . .	\$	2,117,177	1,978,213
Sheepskins—			
Foreign . . . . .	doz.	43,120	45,945
Domestic . . . . .	"	35,813	66,482
Total . . . . .	"	78,933	112,427
" weight . . . . .	lb.	2,408,525	2,933,608
" cost . . . . .	\$	427,962	447,379

TABLE D 7—*continued*

	Unit.	1921	1922
Goatskins—			
Foreign . . . . .	doz.	27,307	61,102
Weight . . . . .	lb.	430,283	1,399,072
Cost . . . . .	\$	488,129	500,142
<i>Leather purchased partly Tanned</i>			
Cattle Hides—			
Foreign, sides . . . . .	No.	2,900	7,836
Domestic „ . . . . .	„	43,615	40,209
Total sides . . . . .	„	46,515	48,045
„ weight . . . . .	lb.	2,133,865	1,372,128
„ cost . . . . .	\$	280,049	197,176
Horse Hides—			
Domestic, sides . . . . .	No.	—	120
Weight . . . . .	lb.	—	2,700
Cost . . . . .	\$	—	242
Calf- and Kipskins—			
Foreign . . . . .	No.	116,288	66,173
Domestic . . . . .	„	8,972	20,028
Total . . . . .	„	125,260	86,201
„ weight . . . . .	lb.	876,820	625,280
„ cost . . . . .	\$	263,555	218,398
Goatskins—			
Foreign . . . . .	doz.	59	—
Weight . . . . .	lb.	1,300	—
Cost . . . . .	\$	603	—
Sheepskins—			
Foreign . . . . .	doz.	20,247	3,012
Domestic . . . . .	„	10,232	3,950
Total . . . . .	„	30,479	6,962
„ weight . . . . .	lb.	743,875	149,754
„ cost . . . . .	\$	177,001	21,240
Splits—			
Foreign . . . . .	No.	—	356
Domestic . . . . .	„	68,534	141,780
Total . . . . .	„	68,534	142,136
„ weight . . . . .	lb.	689,949	1,089,806
„ cost . . . . .	\$	47,363	59,742

TABLE D 7—*continued*

	Unit.	1921	1922
Other Hides or Skins—			
Domestic . . . . .	No.	—	4,000
Weight . . . . .	lb.	—	16,000
Cost . . . . .	\$	5,000	6,636
Other materials used—			
Bark for tanning . . . . .	\$	463,019	362,278
Tanning extracts . . . . .	"	1,718,204	1,504,277
Tallow and oils . . . . .	"	432,109	511,626
Chemicals, dyes, etc. . . . .	"	604,552	490,115
Other tanning materials . . . . .	"	362,285	395,454
Total cost of hides, skins, and other materials used . . . . .	"	15,157,358	15,754,951

TABLE D 8

CUSTOM TANNING HIDES AND SKINS TREATED FOR CUSTOMERS, 1922

*Leather Tanned, but not Finished*

Cattle hides . . . . .	No.	39,717
Weight . . . . .	lb.	2,050,788
Horse-hides . . . . .	No.	314
Weight . . . . .	lb.	15,510
Calf- or kipskins . . . . .	No.	5,171
Weight . . . . .	lb.	33,918
Sheepskins . . . . .	doz.	860
Weight . . . . .	lb.	30,500

*Leather Tanned and Finished*

Cattle hides . . . . .	No.	34,182
Weight . . . . .	lb.	1,262,135
Horse-hides . . . . .	No.	1,169
Weight . . . . .	lb.	54,980
Calf- or kipskins . . . . .	No.	10,276
Weight . . . . .	lb.	96,759
Sheepskins . . . . .	doz.	41,185
Weight . . . . .	lb.	1,103,511

Total amount received for Custom tanning  
during the year . . . . .

579,790

TABLE D 9

PRODUCTION OF ESTABLISHMENTS ENGAGED IN THE LEATHER INDUSTRY, CANADA,  
1920, 1921 AND 1922

	1920	1921	1922
<i>Sole Leather—</i>			
Hemlock sides (No.)	555,369	548,621	261,945
weight (lb.)	11,320,240	10,197,800	5,368,478
value (\$)	5,697,836	3,455,036	1,738,211
Union sides (No.)	170,453	67,697	225,168
weight (lb.)	3,815,324	1,412,752	4,742,155
value (\$)	2,529,456	324,458	1,553,202
Oak sides (No.)	665,853	478,800	662,873
weight (lb.)	13,249,604	9,594,372	13,610,499
value (\$)	7,955,431	3,729,970	4,853,270
Chrome sides (No.)	27,673	121,457	148,575
weight (lb.)	545,060	2,297,446	3,234,231
value (\$)	218,564	524,247	937,022
Sole leather splits (No.)	3,115	—	—
value (\$)	6,550	—	93,715
<i>Upper Leather—</i>			
Cattle or horse-hides sides (No.)	1,232,338	468,461	603,081
area (sq. ft.)	23,291,639	8,363,624	10,534,658
value (\$)	6,821,995	2,225,588	2,645,918
Calfskins (No.)	621,642	1,276,083	984,157
area (sq. ft.)	5,623,448	12,042,069	9,003,018
value (\$)	3,700,014	4,256,364	3,255,519
Patent calfskins (No.)	9,636	4,686	—
area (sq. ft.)	93,026	57,070	—
value (\$)	64,408	15,555	—
Patent and enamelled leather skins (No.)	79,392	84,295	244,556
area (sq. ft.)	1,270,817	1,399,109	3,666,596
value (\$)	710,371	460,477	1,096,818
Patent and enamelled shoe leather sides (No.)	†	217,293	310,449
area (sq. ft.)	†	3,033,358	4,155,890
value (\$)	†	962,164	1,236,970
Sheepskins (doz.)	47,882	72,362	92,462
area (sq. ft.)	3,700,000	5,780,561	7,058,685
value (\$)	995,386	695,231	713,264
Goatskins (doz.)	40,468	23,312	70,986
area (sq. ft.)	2,572,750	1,474,715	3,571,981
value (\$)	1,358,243	635,621	868,104
Wax splits (No.)	151,337	55,426	88,885
value (\$)	317,382	89,378	96,922

† Included in 1920 with skins.

TABLE D 9—continued

	1920	1921	1922
Chrome splits (No.)	675,371	442,559	685,222
area (sq. ft.)	3,686,584	2,745,720	4,855,128
value (\$)	440,789	301,793	459,977
Other splits			
value (\$)	—	—	124,321
Oil-tanned shoepack leather sides (No.)	35,202	20,564	12,812
weight (lb.)	—	—	251,770
value (\$)	583,319	200,575	97,684
Harness leather sides (No.)	275,401	188,092	240,235
weight (lb.)	5,368,668	3,739,853	4,892,174
value (\$)	4,034,025	1,737,102	1,845,131
Belting leather sides (No.)	38,261	19,881	12,587
weight (lb.)	489,454	507,847	248,240
value (\$)	635,794	456,751	183,787
Carriage, automobile and furniture leather			
hides (No.)	85,629	31,985	51,973
area (sq. ft.)	4,011,944	1,465,935	2,586,010
value (\$)	1,335,336	410,668	526,434
Glove, trunk, bag and pocket-book leather			
value (\$)	1,168,588	657,593	709,615
Bookbinders' leather (skins or side leather)			
area (sq. ft.)	189,728	144,822	—
value (\$)	118,091	37,983	23,451
Lace leather			
weight (lb.)	—	—	134,915
value (\$)	†	226,481	152,793
Sheepskins, pickled only (doz.)	†	6,867	1,100
value (\$)	—	30,512	8,398
Wool weight (lb.)	193,335	225,396	15,390
value (\$)	81,701	60,214	3,484
Hair weight (lb.)	2,654,872	1,971,328	2,817,472
value (\$)	101,891	62,642	87,981
Glue stock			
weight (lb.)	14,556,945	11,600,047	17,655,891
value (\$)	168,164	117,916	119,369
All other products			
value (\$)	930,497	589,765	280,734
Amount received for custom tanning (\$)	†	641,534	579,790
Total value of production (\$)	39,967,831	22,905,528	24,291,884

† Included for 1920 with "all other products."

TABLE D 10

IMPORTS FOR CONSUMPTION OF PRODUCTS OF THE CANADIAN LEATHER INDUSTRY DURING  
CALENDAR YEARS 1920, 1921 AND 1922

Article.	1920 \$	1921 \$	1922 \$
Leather belting of all kinds . . . . .	560,387	161,676	201,862
Calf, kid or goat, lamb and sheepskins, tanned . . . . .	354,993	150,268	130,139
Calf, kid or goat, lamb and sheepskins, dressed, waxed or glazed . . . . .	2,688,089	1,700,500	1,138,135
Glove leathers, tanned or dressed, coloured or un- coloured, imported by glove manufacturers for use exclusively in their own factories in the manufacture of gloves . . . . .	2,512,243	736,012	879,622
Harness leather . . . . .	73,800	22,383	29,085
Japanned, patent or enamelled leather, morocco leather, and leather in imitation of morocco leather . . . . .	39,758	12,650	33,605
Skins for morocco leather, tanned but not further manufactured . . . . .	20,780	1,267	358
Sole leather . . . . .	246,907	281,201	131,185
Tanners' scrap leather . . . . .	22,060	19,204	18,253
Upper leather, not dressed, waxed or glazed . . . . .	62,702	57,840	61,786
Upper leather, including dongola cardovan, kan- garoo, alligator, and all leather dressed, waxed or glazed, or further finished than tanned n.o.p. and chamois skins . . . . .	1,207,342	581,520	682,395
Other leather, dressed, waxed or glazed, etc., n.o.p. . . . .	294,067	210,295	276,322
All other leather and skins n.o.p. . . . .	384,409	124,408	182,272
Total leather, unmanufactured . . . . .	8,467,537	4,059,222	3,764,929

TABLE D 11

EXPORTS OF PRODUCTS OF THE CANADIAN LEATHER INDUSTRY DURING CALENDAR YEARS  
1920, 1921 AND 1922

Article.	1920 \$	1921 \$	1922 \$
Harness leather . . . . .	420,631	404,338	534,097
Sole " . . . . .	1,422,542	1,105,025	1,758,072
Upper " . . . . .	5,339,168	2,137,038	2,603,476
Other unmanufactured leather, n.o.p. . . . .	500,987	378,419	195,739
Total leather, unmanufactured . . . . .	7,692,328	4,025,420	5,091,384



## LEATHER, HIDES, AND SKINS

TABLE D 12

## IMPORTS INTO CANADA OF SOLE LEATHER

Total Imports : 749,681 lb. (\$157,949) in 1913, \$234,872 in 1921.  
 From Empire Countries : 412,076 lb. (\$83,607) in 1913, \$20,001 in 1921.  
 (*United Kingdom*) : 412,076 lb. (\$83,607) in 1913, \$20,001 in 1921.  
 From Foreign Countries : 337,605 lb. (\$74,342) in 1913, \$214,871 in 1921.  
 (*United States*) : 294,391 lb. (\$63,698) in 1913, \$214,871 in 1921.

TABLE D 13

## IMPORTS INTO CANADA OF BELTING LEATHER OF ALL KINDS

Total Imports : 585,292 lb. (\$262,737) in 1913, \$469,331 in 1921.  
 From Empire Countries : 569,326 lb. (\$252,286) in 1913, \$395,595 in 1921.  
 (*United Kingdom*) : 569,326 lb. (\$252,286) in 1913, \$395,595 in 1921.  
 From Foreign Countries : 15,966 lb. (\$10,451) in 1913, \$73,736 in 1921.  
 (*United States*) : 15,966 lb. (\$10,451) in 1913, \$73,736 in 1921.

TABLE D 14

## IMPORTS INTO CANADA OF HARNESS LEATHER

Total Imports : 51,948 lb. (\$25,245) in 1913, \$69,023 in 1921.  
 From Empire Countries : 30,152 lb. (\$15,413) in 1913, \$16,638 in 1921.  
 (*United Kingdom*) : 30,152 lb. (\$15,413) in 1913, \$16,469 in 1921.  
 From Foreign Countries : 21,796 lb. (\$9,832) in 1913, \$52,385 in 1921.  
 (*United States*) : 21,796 lb. (\$9,832) in 1913, \$52,385 in 1921.

TABLE D 15

IMPORTS INTO CANADA OF JAPANNED, PATENT OR ENAMELLED LEATHER,  
MOROCCO LEATHER AND LEATHER IN IMITATION MOROCCO LEATHER

Total Imports : 65,713 lb. (\$47,889) in 1913, \$34,832 in 1921.  
 From Empire Countries : 2,579 lb. (\$4,753) in 1913, \$5,549 in 1921.  
 (*United Kingdom*) : 2,579 lb. (\$4,753) in 1913, 5,549 lb. in 1921.  
 From Foreign Countries : 63,134 lb. (\$43,136) in 1913, \$29,283 in 1921.  
 (*United States*) : 63,134 lb. (\$43,136) in 1913, \$28,993 in 1921.

TABLE D 16

IMPORTS INTO CANADA OF SKINS FOR MOROCCO LEATHER, TANNED BUT  
NOT FURTHER MANUFACTURED

Total Imports : 64,835 lb. (\$28,197) in 1913, \$12,589 in 1921.  
 From Empire Countries : 38,028 lb. (\$15,787) in 1913, \$2,655 in 1921.  
 (*United Kingdom*) : 38,028 lb. (\$15,787) in 1913, \$2,655 in 1921.  
 From Foreign Countries : 26,807 lb. (\$12,410) in 1913, \$9,934 in 1921.  
 (*United States*) : 26,807 lb. (\$12,410) in 1913, \$9,934 in 1921.

# CANADA

211

TABLE D 17

## IMPORTS INTO CANADA OF CALF-, KID- OR GOAT-, LAMB-, AND SHEEPSKINS TANNED

Total Imports : 144,089 lb. (\$72,429) in 1913, \$274,965 in 1921.  
From Empire Countries : 43,476 lb. (\$16,740) in 1913, \$11,946 in 1921.  
(*United Kingdom*) : 43,476 lb. (\$16,740) in 1913, \$11,635 in 1921.  
From Foreign Countries : 100,613 lb. (\$55,689) in 1913, \$263,019 in 1921.  
(*United States*) : 100,204 lb. (\$55,355) in 1913, \$262,119 in 1921.

TABLE D 18

## IMPORTS INTO CANADA OF CALF-, KID- OR GOAT-, LAMB-, AND SHEEPSKINS DRESSED, WAXED, OR GLAZED

Total Imports : 1,032,876 lb. (\$555,210) in 1913, \$1,799,308 in 1921.  
From Empire Countries : 508,835 lb. (\$182,486) in 1913, \$152,915 in 1921.  
(*United Kingdom*) : 508,835 lb. (\$182,486) in 1913, \$152,188 in 1921.  
From Foreign Countries : 524,041 lb. (\$372,724) in 1913, \$1,646,393 in 1921.  
(*United States*) : 518,757 lb. (\$368,654) in 1913, \$1,643,495 in 1921.

TABLE D 19

## IMPORTS INTO CANADA OF UPPER LEATHER, INCLUDING DONGOLA CORDOVAN, KANGAROO, ALLIGATOR, AND ALL LEATHER DRESSED, WAXED, OR GLAZED, OR FURTHER FINISHED THAN TANNED, AND CHAMOIS SKINS

Total Imports : 426,135 lb. (\$364,147) in 1913, \$868,289 in 1921.  
From Empire Countries : 103,087 lb. (\$91,779) in 1913, \$356,494 in 1921.  
(*United Kingdom*) : 102,687 lb. (\$91,422) in 1913, \$356,494 in 1921.  
From Foreign Countries : 322,948 lb. (\$272,368) in 1913, \$511,804 in 1921.  
(*United States*) : 321,974 lb. (\$271,582) in 1913, \$508,271 in 1921.

TABLE D 20

## IMPORTS INTO CANADA OF UPPER LEATHER, NOT DRESSED, WAXED, OR GLAZED

Total Imports : 49,502 lb. (\$22,221) in 1913, \$51,048 in 1921.  
From Empire Countries : 20,424 lb. (\$7,485) in 1913.  
(*United Kingdom*) : 20,424 lb. (\$7,485) in 1913.  
From Foreign Countries : 29,078 lb. (\$14,736) in 1913, \$51,048 in 1921.  
(*United States*) : 29,078 lb. (\$14,736) in 1913, \$51,048 in 1921.

TABLE D 21

IMPORTS INTO CANADA OF GLOVE LEATHERS, TANNED OR DRESSED,  
COLOURED OR UNCOLOURED

Total Imports : \$829,687 in 1913, \$2,068,913 in 1921.  
 From Empire Countries : \$16,628 in 1913, \$94,845 in 1921.  
 (*United Kingdom*) : \$16,628 in 1913, \$94,845 in 1921.  
 From Foreign Countries : \$813,059 in 1913, \$1,974,068 in 1921.  
 (*Italy*) : \$116,774 in 1921.  
 (*United States*) : \$796,342 in 1913, \$1,855,409 in 1921.  
 (*Germany*) : \$16,598 in 1913.

TABLE D 22

## IMPORTS INTO CANADA OF ALL OTHER LEATHER, DRESSED, WAXED, OR GLAZED

Total Imports : 2,347,487 lb. (\$1,537,024) in 1913, \$210,667 in 1921.  
 From Empire Countries : 821,192 lb. (\$368,098) in 1913, \$57,194 in 1921.  
 (*United Kingdom*) : 821,192 lb. (\$368,098) in 1913, \$56,818 in 1921.  
 From Foreign Countries : 1,526,295 lb. (\$1,168,926) in 1913, \$153,473 in 1921.  
 (*United States*) : 1,473,383 lb. (\$1,137,291) in 1913, \$152,815 in 1921.

TABLE D 23

## IMPORTS INTO CANADA OF OTHER LEATHER AND SKINS

Total Imports : 624,467 lb. (\$270,806) in 1913, \$243,468 in 1921.  
 From Empire Countries : 175,302 lb. (\$70,839) in 1913, \$59,047 in 1921.  
 (*United Kingdom*) : 166,502 lb. (\$70,795) in 1913, \$54,436 in 1921.  
 From Foreign Countries : 449,165 lb. (\$199,967) in 1913, \$184,421 in 1921.  
 (*United States*) : 437,922 lb. (\$192,945) in 1913, \$183,679 in 1921.

TABLE D 24

## EXPORTS FROM CANADA OF SOLE LEATHER

Total Exports : 3,589,599 lb. (\$974,497) in 1913, 1,391,510 lb. (\$870,183) in 1921.  
 To Empire Countries : 3,291,745 lb. (\$886,779) in 1913, 304,322 lb. (\$241,207) in 1921.  
 (*United Kingdom*) : 3,067,085 lb. (\$823,050) in 1913, 237,369 lb. (\$184,151) in 1921.  
 (*Newfoundland*) : 147,229 lb. (\$36,067) in 1913.  
 (*New Zealand*) : 76,836 lb. (\$27,528) in 1913, 52,487 lb. (\$48,021) in 1921.

# CANADA

213

To Foreign Countries : 297,854 lb. (\$87,718) in 1913, 1,087,188 lb. (\$628,976) in 1921.  
*(Belgium)* : 100,240 lb. (\$34,384) in 1913.  
*(United States)* : 197,537 lb. (\$53,307) in 1913, 828,859 lb. (\$429,568) in 1921.  
*(Greece)* : 230,503 lb. (\$191,374) in 1921.

TABLE D 25

## EXPORTS FROM CANADA, OF UPPER LEATHIER

Total Exports : 417,004 lb. (\$102,860) in 1913, \$3,397,075 in 1921.  
 To Empire Countries : 414,124 lb. (\$99,777) in 1913, \$2,336,647 in 1921.  
*(United Kingdom)* : 356,799 lb. (\$82,814) in 1913, \$2,189,945 in 1921.  
*(Newfoundland)* : 56,625 lb. (\$16,464) in 1913.  
*(Australia)* : 60 lb. (\$70) in 1913, \$73,385 in 1921.  
*(New Zealand)* : 500 lb. (\$385) in 1913, \$71,172 in 1921.  
 To Foreign Countries : 2,880 lb. (\$3,092) in 1913, \$1,060,428 in 1921.  
*(Greece)* : \$244,741 in 1921.  
*(United States)* : 2,780 lb. (\$3,046) in 1913, \$797,284 in 1921.

TABLE D 26

## EXPORTS FROM CANADA OF HARNESS LEATHER

Total Exports : \$435,076 in 1921.  
 To Empire Countries : \$18,517 in 1921.  
*(United Kingdom)* : \$3,655 in 1921.  
*(Bardados)* : \$3,961 in 1921.  
*(Other British West Indies)* : \$1,243 in 1921.  
*(Newfoundland)* : \$7,896 in 1921.  
 To Foreign Countries : \$416,559 in 1921.  
*(United States)* : \$416,559 in 1921.

TABLE D 27

## EXPORTS FROM CANADA OF LEATHER NOT OTHERWISE PARTICULARISED

Total Exports : 1,203,641 lb. (\$276,107) in 1913, \$436,094 in 1921.  
 To Empire Countries : 1,073,577 lb. (\$250,060) in 1913, \$91,954 in 1921.  
*(United Kingdom)* : 1,040,331 lb. (\$239,575) in 1913, \$63,178 in 1921.  
*(British South Africa)* : 296 lb. (\$148) in 1913, \$25,553 in 1921.  
*(Newfoundland)* : 17,046 lb. (\$5,774) in 1913, \$302 in 1921.  
*(New Zealand)* : 14,051 lb. (\$3,784) in 1913, \$464 in 1921.  
 To Foreign Countries : 130,064 lb. (\$26,047) in 1913, \$344,140 in 1921.  
*(Belgium)* : 10,700 lb. (\$5,000) in 1913, \$2,880 in 1921.  
*(United States)* : 119,364 lb. (\$21,047) in 1913, \$337,978 in 1921.

TABLE D 28

PRODUCTION STATISTICS OF THE LEATHER BOOT AND SHOE INDUSTRY IN CANADA, WITH QUANTITIES AND VALUES FOR THE CALENDAR YEARS 1919, 1920 AND 1921

	1921		1920		1919	
	No. of pairs.	Factory value.	No. of pairs.	Factory value.	No. of pairs.	Factory value.
<i>Boots and Shoes :</i>						
Men's . . . . .	3,494,502	15,326,394	4,805,005	26,689,531	5,417,956	25,454,982
Boys' . . . . .	739,664	1,869,656	1,028,567	3,664,465	864,224	2,604,573
Youths' . . . . .	443,780	1,253,984	521,910	1,453,387	565,037	1,269,860
Ladies' . . . . .	4,724,538	16,797,609	5,509,992	23,655,758	5,747,248	22,180,983
Misses' . . . . .	848,287	1,812,895	846,994	2,197,996	1,404,494	3,139,493
Girls' . . . . .	903,613	1,558,743	1,038,655	2,001,257	1,774,670	3,093,325
<i>Slippers :</i>						
Men's, Boys' and Youths' . . . . .	565,277	773,281	732,562	959,732	502,601	718,237
Ladies', Misses' and Girls' . . . . .	1,461,508	2,402,503	1,809,369	2,206,719	1,223,939	1,556,552
Infants' shoes and slippers . . . . .	1,074,145	1,102,475	814,975	811,424	861,505	855,441
Larrigans . . . . .	70,969	272,312	213,718	975,476	185,411	667,425
Moccasins . . . . .	419,568	710,300	373,219	959,462	344,775	641,067
All other products . . . . .	—	735,854	—	1,171,785	—	1,080,267
Custom and repair work . . . . .	—	49,375	—	70,182	—	56,923
<b>Total . . . . .</b>	<b>14,745,851</b>	<b>44,665,381</b>	<b>17,693,966</b>	<b>66,817,174</b>	<b>18,891,860</b>	<b>63,319,128</b>

TABLE D 29

IMPORTS INTO CANADA OF BOOTS AND SHOES, SLIPPERS, AND  
INSOLES OF LEATHER

Total Imports : \$4,068,266 in 1913, \$2,175,209 in 1921.  
 From Empire Countries : \$482,843 in 1913, \$363,615 in 1921.  
 (*United Kingdom*) : \$481,844 in 1913, \$358,451 in 1921.  
 From Foreign Countries : \$3,585,423 in 1913, \$1,811,594 in 1921.  
 (*United States*) : \$3,547,503 in 1913, \$1,803,442 in 1921.  
 (*Germany*) : \$20,331 in 1913.

TABLE D 30

IMPORTS INTO CANADA OF BOOTS AND SHOES, PEGGED OR WIRE-  
FASTENED WITH UNSTITCHED SOLES, CLOSE EDGED

Total Imports : \$101,124 in 1913, \$22,912 in 1921.  
 From Empire Countries : \$61,004 in 1913, \$2,133 in 1921.  
 (*United Kingdom*) : \$61,004 in 1913, \$2,133 in 1921.  
 From Foreign Countries : \$40,120 in 1913, \$22,779 in 1921.  
 (*United States*) : \$39,988 in 1913, \$22,779 in 1921.

TABLE D' 31

## EXPORTS FROM CANADA OF BOOTS AND SHOES

Total Exports : \$42,177 in 1913, \$1,441,338 in 1921.  
 To Empire Countries : \$16,833 in 1913, \$1,021,138 in 1921.  
 (*United Kingdom*) : \$1,733 in 1913, \$904,078 in 1921.  
 (*Newfoundland*) : \$12,667 in 1913, \$90,564 in 1921.  
 (*New Zealand*) : \$165 in 1913, \$6,052 in 1921.  
 (*British India*) : \$8,959 in 1921.  
 (*British Guiana*) : \$2,223 in 1921.  
 (*Hong-Kong*) : \$1,236 in 1921.  
 (*Trinidad and Tobago*) : \$4,546 in 1921.  
 To Foreign Countries : \$25,344 in 1913, \$420,200 in 1921.  
 (*China*) : \$119 in 1913, \$2,073 in 1921.  
 (*France*) : \$50 in 1913, \$119,631 in 1921.  
 (*St. Pierre and Miquelon*) : \$9,514 in 1913, \$17,925 in 1921.  
 (*United States*) : \$15,611 in 1913, \$276,015 in 1921.  
 (*Venezuela*) : \$37 in 1921.

TABLE D 32

IMPORTS INTO CANADA OF HARNESS AND SADDLERY, INCLUDIN  
HORSE BOOTS

Total Imports : \$243,371 in 1913, \$124,086 in 1921.  
 From Empire Countries : \$77,217 in 1913, \$39,060 in 1921.  
 (*United Kingdom*) : \$77,217 in 1913, \$38,762 in 1921.  
 From Foreign Countries : \$166,154 in 1913, \$85,026 in 1921.  
 (*United States*) : \$165,866 in 1913, \$84,937 in 1921.

TABLE D 33

## EXPORTS FROM CANADA OF HARNESS AND SADDLERY

Total Exports : \$13,259 in 1913, \$144,786 in 1921.  
 To Empire Countries : \$3,415 in 1913, \$25,169 in 1921.  
 (*United Kingdom*) : \$735 in 1913, \$3,564 in 1921.  
 (*Newfoundland*) : \$2,107 in 1913, \$14,805 in 1921.  
 (*British South Africa*) : \$3,000 in 1921.  
 To Foreign Countries : \$9,844 in 1913, \$119,617 in 1921.  
 (*United States*) : \$5,819 in 1913, \$119,423 in 1921.

TABLE D 34

## EXPORTS FROM CANADA OF LEATHER GLOVES AND MITTS

Total Exports : \$72,626 in 1921.  
 To Empire Countries : \$66,340 in 1921.  
 (*United Kingdom*) : \$22,070 in 1921.  
 (*Newfoundland*) : \$16,747 in 1921.  
 (*New Zealand*) : \$22,096 in 1921.  
 To Foreign Countries : \$6,286 in 1921.  
 (*United States*) : \$6,055 in 1921.

TABLE D 34a

## IMPORTS INTO CANADA OF GLOVES AND MITTS OF LEATHER

Total Imports : \$793,355 in 1921.  
 From Empire Countries : \$280,368 in 1921.  
 (*United Kingdom*) : \$280,368 in 1921.  
 From Foreign Countries : \$512,987 in 1921.  
 (*France*) : \$398,776 in 1921.  
 (*Switzerland*) : \$28,063 in 1921.  
 (*United States*) : \$67,520 in 1921.

TABLE D 35

## IMPORTS INTO CANADA OF LEATHER BELTING

Total Imports : \$253,826 in 1913, \$166,409 in 1921.  
 From Empire Countries : \$49,595 in 1913, \$38,280 in 1921.  
 (*United Kingdom*) : \$49,595 in 1913, \$38,280 in 1921.  
 From Foreign Countries : \$204,231 in 1913, \$128,129 in 1921.  
 (*United States*) : \$204,229 in 1913, \$128,129 in 1921.

TABLE D 36

## EXPORTS FROM CANADA OF LEATHER BELTING

Total Exports : \$4,864 in 1921.  
 To Empire Countries : \$3,429 in 1921.  
 (*Newfoundland*) : \$2,567 in 1921.  
 To Foreign Countries : \$1,435 in 1921.  
 (*United States*) : \$1,122 in 1921.

TABLE D 37

IMPORTS INTO CANADA OF ALL OTHER MANUFACTURES OF LEATHER AND  
RAW HIDES

Total Imports : \$820,321 in 1913, \$904,081 in 1921.  
 From Empire Countries : \$78,038 in 1913, \$191,063 in 1921.  
 (*United Kingdom*) : \$78,037 in 1913, \$190,942 in 1921.  
 From Foreign Countries : \$742,283 in 1913, \$713,018 in 1921.  
 (*France*) : \$730 in 1913, \$25,518 in 1921.  
 (*United States*) : \$737,076 in 1913, \$678,971 in 1921.

TABLE D 38

## EXPORTS FROM CANADA OF OTHER MANUFACTURES OF LEATHER

Total Exports : \$14,674 in 1913, \$279,327 in 1921.  
 To Empire Countries : \$5,060 in 1913, \$5,210 in 1921.  
 (*United Kingdom*) : \$3,114 in 1913, \$1,473 in 1921.  
 (*Newfoundland*) : \$1,771 in 1913, \$2,140 in 1921.  
 To Foreign Countries : \$9,614 in 1913, \$274,117 in 1921.  
 (*Greece*) : \$2,822 in 1921.  
 (*United States*) : \$4,302 in 1913, \$269,019 in 1921.  
 (*France*) : \$5,002 in 1913.

TABLE D 39

IMPORTS INTO CANADA OF EXTRACT OF LOGWOOD, FUSTIC, OAK, AND  
OAK BARK AND QUEBRACHO

Total Imports : 37,724,427 lb. (\$976,703) in 1913, 28,192,453 lb. (\$1,890,940) in 1921.  
 From Empire Countries : 909,794 lb. (\$23,823) in 1913, 7,729,369 lb. (\$547,844) in 1921.  
 (*United Kingdom*) : 906,514 lb. (\$23,479) in 1913, 1,488,813 lb. (\$119,144) in 1921.  
 (*Straits Settlements*) : 6,240,556 lb. (\$428,700) in 1921.  
 From Foreign Countries : 36,814,633 lb. (\$952,880) in 1913, 20,463,084 lb. (\$1,343,096) in 1921.  
 (*Argentina*) : 1,585,337 lb. (\$99,083) in 1921.  
 (*United States*) : 36,367,119 lb. (\$936,288) in 1913, 18,877,747 lb. (\$1,244,013) in 1921.  
 (*Belgium*) : 53,710 lb. (\$1,097) in 1913.  
 (*France*) : 373,434 lb. (\$14,826) in 1913.



TABLE D 39a

## EXPORTS FROM CANADA OF HEMLOCK EXTRACT

Total Exports : \$24,480 in 1913, \$33,957 in 1921.  
 To Empire Countries : \$20,520 in 1913, \$33,755 in 1921.  
 (*United Kingdom*) : \$16,520 in 1913, \$31,300 in 1921.  
 (*Newfoundland*) : \$4,000 in 1913, \$2,455 in 1921.  
 To Foreign Countries : \$3,960 in 1913, \$202 in 1921.  
 (*France*) : \$3,300 in 1913.

TABLE D 40

PARTICULARS FROM OFFICIAL SOURCES OF IMPORTS AND EXPORTS NOT INCLUDED IN PREVIOUS TABLES, PRACTICALLY THE WHOLE OF THE TRADE UNDER EACH HEADING BEING WITH UNITED STATES

Article.	Year ending March 31st.			
	Quantity. lb.	1913 Value. \$	Quantity. cwt.	1921 Value. \$
<i>Exports—</i>				
Cattle hides and skins . . . . .	Not available		222,000	3,957,000
Sheepskins . . . . .	" "		43,000	498,000
Hides and skins not otherwise particularised . . . . .	" "		Not available	277,000
Total of hides and skins . . . . .	Not available	7,196,000	" "	4,732,000
Tanning bark . . . . .	" "	30,000	" "	37,000
<i>Imports—</i>			lbs.	
Bichromate of potash and soda . . . . .	Not available		1,265,000	252,000
Crude tanning materials* . . . . .	" "		171,000	22,000
Tanners' scrap leather . . . . .	54,000	6,600	Not available	19,600
Boots and shoes, rubber . . . . .	Not available	96,000	" "	269,000
Belting, rubber . . . . .	" "	128,000	" "	193,000

TABLE D 41

## IMPORTS INTO UNITED STATES FROM CANADA

*Hides and Skins (except Fur Skins)*

	Quantity. No.		Quantity. Weight (lb.).		Value (\$).	
	1913	1921	1913	1921	1913	1921
Calfskins :						
Dry . . . . .	43,227	216,911	212,893	1,365,249	61,365	281,493
Green or pickled . . . . .	716,887	560,572	5,717,117	4,406,119	1,104,705	734,433
Cattle hides (12 lb. and over) :						
Dry . . . . .	15,061	20,540	366,787	460,355	81,608	53,806
Green or pickled . . . . .	812,088	572,430	41,241,389	25,076,835	5,897,985	2,134,970

TABLE D 41—*continued*

	Quantity. No.		Quantity. Weight (lb.).		Value (\$).	
	1913	1921	1913	1921	1913	1921
Goatskins :						
Dry . . . . .	18,617	54,661	46,998	112,097	16,261	30,709
Green or pickled . . . . .	201	—	500	—	134	—
Horse, colt or ass-skins :						
Dry . . . . .	15,404	1,067	76,929	55,160	10,668	9,590
Green or pickled . . . . .	34,454	22,887	1,548,755	917,484	127,903	55,163
Kangaroo and wallaby-skins	—	—	8,468	—	5,680	—
Sheepskins :						
Dry . . . . .	53,708	277,738	186,374	982,099	24,331	103,333
Green or pickled . . . . .	489,356	462,889	1,675,574	1,872,151	166,036	168,317
All other . . . . .	—	—	482,002	714,078	67,885	40,509
Total hides and skins . . . . .	—	—	—	—	—	3,612,233
Hide cuttings, raw and other glue stock . . . . .	—	—	—	5,693,234	48,658	162,085

TABLE D 42

## IMPORTS INTO UNITED STATES FROM CANADA

*Leather and Leather Manufactures*

	Quantity.		Value (\$).	
	1913	1921	1913	1921
<i>Leather and tanned skins—</i>				
Chamois skins (lb.) . . . . .	—	—	52	88
Glove leather (lb.) . . . . .	—	—	101	97
Goatskins, tanned (skins for Morocco) (lb.) . . . . .	—	—	161	—
Harness and saddle leather (lb.) . . . . .	—	677,364	—	285,243
Patent, japanned, varnished or enamelled (lb.) . . . . .	—	51,621	—	104,726
Sole leather (lb.) . . . . .	—	2,622,124	100,112	864,612
<i>Upper leather, dressed—</i>				
Calf and kip (lb.) . . . . .	—	280,235	2,469	750,710
Goat and kid (lb.) . . . . .	—	2,480	—	3,206
Sheep and lamb (lb.) . . . . .	—	11,712	—	9,679
Other upper leather (lb.) . . . . .	—	295,805	533	396,496
All other leather (free) (lb.) . . . . .	—	—	—	261,416
" " " (dutiable) (lb.) . . . . .	—	—	19,570	—
<i>Leather, manufactures of—</i>				
Boots and shoes (pairs) . . . . .	—	48,181	16,670	114,423
Gloves, women's and children's (doz. pairs) . . . . .	—	57	—	1,551
Gloves, men's (doz. pairs) . . . . .	—	38	—	622
All other manufactures : Free . . . . .	—	—	—	111,623
" " " Dutiable . . . . .	—	—	9,571	3,479

## LEATHER, HIDES, AND SKINS

TABLE D 43

## EXPORTS FROM UNITED STATES TO CANADA

*Leather and Leather Manufactures*

<i>Leather—</i>	Quantity.		Value (\$).	
	1913	1921	1913	1921
Belting leather (lb.) . . . . .	—	13,883	171,858	12,153
Carriage, automobile and up- holstery (lb.) . . . . .	—	—	55,393	21,266
Glove (lb.) . . . . .	—	—	312,052	589,334
Patent (sq. ft.) . . . . .	—	13,299	30,943	5,177
Sole . . . . .	213,404	591,219	57,293	164,782
<i>Upper—</i>				
Calf and kip (sq. ft.) . . . . .	692,625	477,152	148,252	208,995
Goat and kid ( „ ) . . . . .	1,870,954	4,206,660	243,761	1,190,672
Cattle hides, grain and finished splits (sq. ft.) . . . . .	—	620,444	—	112,231
Cattle sides, wax and rough splits (sq. ft.) . . . . .	—	169,213	—	50,613
All other upper . . . . .	—	—	171,710	336,585
All other leather . . . . .	—	—	1,764,345	604,008
<i>Boots and Shoes—</i>				
Children's (pairs) . . . . .	182,278	21,943	141,216	23,647
Men's ( „ ) . . . . .	529,502	43,902	1,209,311	148,237
Women's ( „ ) . . . . .	849,050	289,008	1,676,222	818,484
Gloves (doz. „ ) . . . . .	—	803	—	9,267
Slippers ( „ ) . . . . .	299,782	18,736	299,897	39,983
Harness and saddles . . . . .	—	—	214,875	59,858
Leather belting (lb.) . . . . .	—	48,121	—	67,103
All other manufactures . . . . .	—	—	1,296,714	760,041
Total leather and manufactures of . . . . .	—	—	11,656,920	5,222,416

TABLE D 44

## EXPORTS FROM UNITED STATES TO CANADA

*Hides and Skins (except Fur Skins), Raw*

	Quantity (lbs.).		Value (\$).	
	1913	1921	1913	1921
Calfskins . . . . .	578,518	4,454,452	113,410	979,793
Cattle hides . . . . .	11,123,899	6,025,705	1,798,911	633,421
Horse-hides . . . . .	144,176	7,530	17,285	804
All other . . . . .	1,099,204	1,241,908	155,972	217,932

## APPENDIX I

### LIST OF TRADE ASSOCIATIONS

- MASTER HARNESS MAKERS' ASSOCIATION (Secretary : Victor Dyas), 33 Richmond Street, Toronto.  
BOOT & SHOE MANUFACTURERS' ASSOCIATION OF QUEBEC CITY (Secretary : J. S. Langlois), 566 St. Valier Street, Quebec.  
SHOE MANUFACTURERS' ASSOCIATION OF CANADA (Secretary : Lionel Th  oret), 6 Jordan Street, Toronto.  
'TANNERS' SECTIONS attached to the Board of Trade at Quebec and Toronto.

## APPENDIX II

### BIBLIOGRAPHY

#### TRADE PAPERS

- LEATHER WORKER, 36 Dubrule Buildings, Montreal.  
FOOTWEAR IN CANADA, 347 Adelaide Street West, Toronto.  
SHOE AND LEATHER JOURNAL, 545 King Street West, Toronto.

#### OFFICIAL PUBLICATIONS AND REPORTS

- MONTHLY BULLETIN OF AGRICULTURAL STATISTICS.  
ANNUAL REPORT ON LIVE STOCK AND ANIMAL PRODUCTS.  
ANNUAL REPORT ON DAIRY PRODUCTS.  
ANNUAL REPORT ON SLAUGHTERING AND MEAT PACKING.  
ANNUAL REPORT ON LEATHER TANNERIES.  
ANNUAL REPORT ON HARNESS AND SADDLERY.  
ANNUAL REPORT ON LEATHER BOOTS AND SHOES.  
ANNUAL REPORT ON LEATHER GLOVES AND MITTS.  
ANNUAL REPORT ON TRUNKS, BAGS AND VALISES.  
ANNUAL REPORT OF THE TRADE OF CANADA.  
MONTHLY REPORT OF THE TRADE OF CANADA.  
MONTHLY SUMMARY OF TRADE STATISTICS.  
QUARTERLY REPORT ON VISIBLE SUPPLY OF HIDES AND SKINS.  
THE CANADIAN YEAR BOOK. (Issued annually).  
MEMORANDUM AND TABLES AS TO THE TRADE STATISTICS AND TRADE OF THE SELF-GOVERNING DOMINIONS. Issued by the Dominion Royal Commission, 1916 (C.D. 8156).



SECTION E  
AUSTRALIA

# LIST OF TABLES IN SECTION E

TABLE NO.	PAGE
E 1. ANIMAL PRODUCE, QUANTITIES, 1911, 1913, 1919, 1922, EXPORTS .	237
E 2. ANIMAL PRODUCE, VALUE, 1911, 1913, 1919, 1922, EXPORTS .	237
E 3. ANIMAL PRODUCE, QUANTITIES, 1911, 1913, 1919, 1922, IMPORTS .	237
E 4. ANIMAL PRODUCE, VALUE, 1911, 1913, 1919, 1922, IMPORTS .	238
E 5. WOOLLED SHEEPSKINS, EXPORTS . . . . .	238
E 6. PICKLED SHEEPSKINS, EXPORTS . . . . .	238
E 7. WOOLLED SHEEPSKINS, IMPORTS . . . . .	239
E 8. PICKLED SHEEPSKINS, IMPORTS . . . . .	239
E 9. SHEEPSKINS, NOT OTHERWISE SPECIFIED, IMPORTS . . . . .	239
E 10. LIVE STOCK, 1921-22 . . . . .	239
E 11. CALFSKINS, EXPORTS . . . . .	240
E 12. CATTLE HIDES, EXPORTS . . . . .	240
E 13. HORSE-HIDES, EXPORTS . . . . .	240
E 14. HIDES AND SKINS, NOT OTHERWISE SPECIFIED, EXPORTS . . . . .	241
E 15. CATTLE HIDES AND SKINS, IMPORTS . . . . .	241
E 16. HORSE-HIDES, IMPORTS . . . . .	241
E 17. TANNING BARK, IMPORTS . . . . .	241
E 17a. TANNING BARK, EXPORTS . . . . .	242
E 18. TANNING EXTRACT, IMPORTS . . . . .	242
E 19. VALUE OF OUTPUT IN TANNERIES, LEATHER FACTORIES, ETC., 1921-22 .	243
E 20. MATERIALS USED AND PRODUCTS IN TANNERIES AND BOOT FACTORIES, 1911, 1913, 1918, 1922 . . . . .	243
E 21. LEATHER, EXPORTS, TOTAL VALUE . . . . .	243
E 21a. SOLE LEATHER, EXPORTS . . . . .	244
E 22. GREEN HIDE LEATHER, IMPORTS . . . . .	244
E 23. ROUGH-TANNED GOATSKINS, SHEEPSKINS, AND CHAMOIS LEATHER, IMPORTS . . . . .	244
E 24. PATENT AND ENAMELLED LEATHER, IMPORTS . . . . .	245
E 25. CALF LEATHER, IMPORTS . . . . .	245
E 26. LEATHER NOT OTHERWISE SPECIFIED . . . . .	245
E 27. LEATHER BELT BUTTS, IMPORTS . . . . .	246
E 28. BOOTS, IMPORTS . . . . .	246
E 29. BOOTS, EXPORTS . . . . .	246
E 30. LEATHER BELTING, IMPORTS . . . . .	246
E 31. CANVAS BELTING, IMPORTS . . . . .	247
E 32. LEATHER BELTING, EXPORTS . . . . .	247
E 33. LEATHER MANUFACTURES, IMPORTS . . . . .	247
E 34. LEATHER MANUFACTURES, EXPORTS . . . . .	248

## SECTION E

### AUSTRALIA

AUSTRALIA stands in a prominent position in respect of the leather industry, inasmuch as she is not only a large supplier of the raw materials for manufacturers in other countries, but is at the same time a substantial exporter of tanned leather. Before the War, in fact, she had, in proportion to her production, the greatest export of leather of any country of the world. The Australian authorities take a quite definite attitude regarding the development of tanning in Australia by the aid of protective import duties, their view being that as they have the bulk of the raw materials ready at hand they should manufacture and export the products rather than the raw material. In this connection it is interesting to note here certain facts regarding the bark supplies which will be dealt with in greater detail later. At one time Australia was a substantial exporter of mimosa bark; she now, however, imports considerable quantities owing to the fact that high labour costs render the native article dearer for tanneries situated in a number of places than bark which can be imported from South Africa. Growers of the bark appealed for protection against the imported article, and a substantial import duty has been imposed.

Australia is well served in her official statistics, and it is possible to get quite a comprehensive account of the industry from official sources, though this would be easier if all the States adopted the same date for their returns. This survey can conveniently be made in the following order: (1) sheepskins; (2) hides; (3) tanning materials; (4) leather production, imports, and exports; (5) leather goods production, imports and exports.

Before starting a detailed survey reference may be made to Tables E 1 to 4, in which are given summary figures for three pre-War years and three post-War years of the imports and exports of various animal products associated with the hide, skins, leather, and allied industries, both by quantity and value. The facts regarding the individual items will be reviewed later. The average of the pre-War exports by value was £4,460,000, while the corresponding average imports were only £230,000. Omitting figures for the very abnormal year 1919-20, the post-War exports averaged £3,900,000 and the corresponding imports averaged £650,000. It would appear from these figures that Australia's imports of these commodities (mainly hides and skins) are increasing at a substantial rate, while her exports are not increasing.

### SHEEPSKINS

A census of the number of sheep in the Dominion, in certain States on the 30th June and in others on the 1st March, is taken. The returns show consider-



able variation from year to year, but the pre-War comparison with the post-War figures is as follows :—

1912	.	.	.	.	.	93,004,000
1913	.	.	.	.	.	83,254,000
1919	.	.	.	.	.	87,086,000
1920	.	.	.	.	.	75,554,000
1921	.	.	.	.	.	77,808,000
1922	.	.	.	.	.	82,226,000

These figures indicate a reduction of approximately 10 per cent in sheep supplies.

Particulars are available as to the number of sheep slaughtered under (a) slaughtering establishments ; (b) boiling-down establishments ; (c) stations, farms, and country butchering establishments. As the standard of flaying of skins is probably higher in the case of (a) than under (c) it is of interest to note the separate figures, which for 1921-22 were :

(a)	.	.	.	.	.	9,949,000
(b)	.	.	.	.	.	17,000
(c)	.	.	.	.	.	2,481,000

The total number of sheep and lambs slaughtered in certain pre-War and post-War years were as follows :—

1912	.	.	.	.	.	13,539,000
1913	.	.	.	.	.	14,703,000
1918-19	.	.	.	.	.	10,463,000
1919-20	.	.	.	.	.	15,188,000
1920-21	.	.	.	.	.	10,844,000
1921-22	.	.	.	.	.	12,447,000

In the post-War period certain States, representing about one-half of the slaughterings, returned figures for twelve months ending June 30th, and the remainder for the calendar year. In the figures just quoted, the figure for 1918-19 includes those for certain States for the calendar year 1918, and for the other States for the twelve months ending June 30th, 1919. The post-War figures are, on the average, about 13 per cent less than the pre-War ones.

Table E 5 shows in detail the exports of woolled skins for 1913 and 1921, the totals in the two years being 10,950,000 and 7,270,000 respectively. Subtracting these from the corresponding figures of sheep slaughtered in the two years (figures for the calendar year 1921 being determined by a detailed analysis of the figures of the individual States) the numbers of skins worked upon in Australia are ascertained to be 3,700,000 in 1913 and 4,430,000 in 1921. The numbers of pelts produced in the fellmongeries were 3,740,000 in 1913 and 4,520,000 in 1921-22, these figures being in satisfactory agreement with the

previous ones. Thus, before the War, Australia exported in the woolled form about 75 per cent of her sheepskins, while after the War the corresponding proportion was less than two-thirds. Only a small number of pickled pelts are exported from Australia (see Table E 6 for details), the total in 1913 being 160,000 and in 1921 120,000 pelts. Particulars are available of the number of sheepskins tanned in the Dominion, but these do not distinguish between Australian skins and imported ones (there is an appreciable import of sheepskins, see Tables E 7 to 9). Subtracting the above figures for exports from the corresponding numbers of fellmongered skins, however, indicates that the approximate numbers of skins tanned in Australia were 3,600,000 in 1913 and 4,400,000 in 1921-22, being about one-quarter of the skins produced in the Dominion in 1913 and one-third in 1921-22.

Table E 5 shows that the woolled sheepskins exported go mainly to the United Kingdom and France, the latter country standing first. A proportion (see Table B 41 of Section B) coming to this country is re-exported, but the bulk are fellmongered here and are then used for a variety of purposes. During the War they were in demand for jerkin leather. Being almost entirely from merino sheep they do not possess the quality of the skin from cross-bred sheep of Great Britain and New Zealand, and cannot be used for such special work as, for example, roller skins. The only other countries taking appreciable quantities of woolled skins from Australia are Belgium and the United States.

The pickled pelts exported go mainly to the United Kingdom and the United States, and a large proportion of those reaching this country are subsequently re-exported (see Table B 42 of Section B).

#### HIDES AND CALFSKINS

Table E 10 gives detailed particulars of cattle, etc., at the last census (1921-22) for which figures are available.

The number of cattle and horses in the Dominion in certain pre-War and post-War years were as follows: (the same explanation of date holds as in the case of sheepskins).

	Cattle.	Horses.
1912 . . . . .	11,829,000	2,278,000
1913 . . . . .	11,577,000	2,407,000
1919 . . . . .	12,739,000	2,527,000
1920 . . . . .	12,711,000	2,421,000
1921 . . . . .	13,500,000	2,416,000
1922 . . . . .	14,441,000	2,438,000

The number of cattle has increased substantially, the average post-War figure being nearly 14 per cent in excess of the corresponding pre-War average. Figures are collected each year of the number of calves born in each of the Federal States except Victoria, and from these figures it would appear that the number of calves born is about 25 per cent of the number of cattle shown at the date of enumeration. The number of calves born is probably therefore in the neighbourhood of 3,500,000 annually.

The returns of cattle slaughtered (which do not distinguish between calves and other cattle) show the following annual figures :—

1912	.	.	.	.	.	1,529,000
1913	.	.	.	.	.	1,780,000
1918-19	.	.	.	.	.	1,335,000
1919-20	.	.	.	.	.	1,598,000
1920-21	.	.	.	.	.	1,537,000
1921-22	.	.	.	.	.	1,649,000

In 1921-22, 1,548,000 of the total were killed in large slaughtering establishments.

These figures, proportionally to the number of living cattle, are very much below those in the United Kingdom, and evidence will be given later indicating that they considerably understate the actual slaughter. It is understood that, owing to the inability to obtain an assured market for meat abroad under post-War conditions, the numbers of cattle will be diminished in Australia. This will temporarily have the effect of increasing the supply of hides, but subsequently the numbers available each year will be on a diminishing scale.

As both the imports and exports of hides are known by number, it is possible to show the number of hides available for tanners and to compare these figures with those published of the number of hides actually used by tanners. The comparison is :—

	Native Hides and Calfskins produced. (000)	Imports of Hides and Calfskins. (000)	Exports of Hides and Calfskins. (000)	Consumption of Hides and Calfskins. (000)	Hides and Calfskins treated by Tanners. (000)
1912	1,529	97	549	1,077	1,446
1913	1,780	86	821	1,045	1,422
1918-19	1,335	132	289	1,176	1,742
1919-20	1,598	260	745	1,113	1,994
1920-21	1,537	206	309	1,434	2,023
1921-22	1,649	313	535	1,427	2,329

There is a marked discrepancy between the corresponding figures in the last two columns. Both the import figures and the export ones ought possibly to be increased by the inclusion of figures returned under "other skins," but it is probable that the deficiency due to this cause is greater in the export figures than in the imports, and this would aggravate the discrepancy between the last two columns. The most likely explanation is that the figures of cattle slaughtered are understated, particularly with regard to calfskins. In 1921-22 out of 2,300,000 cattle hides and calfskins tanned 840,000 were calfskins. Many of these were, however, imported from New Zealand. The Australian Trade Returns do not state the number, but the New Zealand Returns of Exports to Australia showed 362,860 calfskins in 1922. It is probable that the statistics of imports, exports, and of hides and skins tanned are more accurate than are statistics of animals slaughtered. Assuming the accuracy of the former, and the inaccuracy of the latter, it would appear that in recent

years the figures of slaughter are about 500,000 annually less than the number of native hides and calfskins actually available.

# EXPORTS AND IMPORTS OF HIDES AND CALFSKINS

On the balance Australia is a substantial importer of calfskins. Details of the exports of these skins are shown in Table E 11, but separate figures for the imports are not published in the Australian official volumes, but are included with cattle hides in Table E 15. The New Zealand returns show that the exports from that country of calfskins to Australia was 363,000 in 1921-22, as compared with a total export from Australia of less than 90,000 skins (Table E 11). Two-thirds of these skins went to the United States. The figures of exports of calfskins in 1913 are included in Table E 14 under the heading "Hides and skins not otherwise specified." It is clear, however, from a comparison of Tables E 11 and 14, that the exports of calfskins diminished considerably between 1913 and 1921-22.

Table E 12 gives particulars of the exports of cattle hides. These fell in number from 1,068,000 in 1913 to 446,000 in 1921-22, and in value from £1,655,000 to £530,000. These exports are spread over many countries. In 1913 one-third came to the United Kingdom, but Belgium, Germany, and the United States took substantial quantities. The same countries were prominent in the exports in 1921-22, but the proportion coming to the United Kingdom increased to more than 50 per cent. Table E 15 gives the details of the imports of cattle hides and skins. These nearly doubled in number, almost entirely due to the increased importation of calfskins from New Zealand.

The branding of hides in Australia is a serious deficiency from the tanners' point of view, and in certain of the States fairly complete control is now exercised. Special reference may be made to the Act passed by the State Governor of Victoria in 1922 under the title "An Act relating to the Branding and Ear-marking of Stock." The Victorian Government, for the purpose of this Act, obtained the unrestricted rights of use in Victoria of the scheme of branding and ear-marking stock devised by Mr. W. A. N. Robertson and described in his book entitled *Branding and Ear-marking Stock*. By this ingenious scheme no fewer than 4,500,000 brands, of which no two are alike, can be simply made, each single one of which can be made within the area covered by a square of  $3\frac{1}{2}$  inches side. The Act stipulates the positions upon which horses or cattle must be branded shall be as follows :—

1st position . . .	left shoulder
2nd „ . . .	right „
3rd „ . . .	left thigh
4th „ „ . . .	right „
5th „ . . .	left neck
6th „ . . .	right „

The thigh means that portion of the hind leg of the animal below the hip joint. All brands have to be registered and they are accepted as prima facie evidence

of ownership. Substantial penalties are enacted for offences against the Act.

Recently an amendment has been proposed to the Stock Brands Act in New South Wales.

"The proposed amendment provides that the brands shall be placed on one side of a beast and kept off the ribs. This will mean that one-half of each hide shall have no brands at all, disfiguring or otherwise, and this is regarded by the tanners as providing a certain measure of relief which will be felt later on, and may lead to similar legislation in Queensland, the great cattle-breeding State. Under existing regulations, and during the suspension of the Act passed two years ago, it is permissible, and in fact the practice, when a beast changes ownership, to place the new owner's brands on the opposite side of the hide, the result being that about 20 per cent of all the hides were brand-damaged and worth less by  $\frac{1}{4}$ d. to  $1\frac{3}{4}$ d. and 2d. per lb. New Zealand hides invariably bring more in the Australian markets because they are well known to be much freer of damage through branding."—*The Australasian Leather Trades Review*, 14th September, 1923.

#### TANNING MATERIALS

The only tanning material used in Australia of which there is general information is tanning bark. Australia is the home of wattle bark, and for a long time maintained a substantial export trade in this article. Its introduction into South Africa, however, and the wonderful development of the industry there has supplied the whole world with a tanning agent, and Australia has ceased to be an exporter except to an almost inappreciable extent, and during the War required to import a substantial amount from South Africa.

The pre-War position regarding bark may be compared with the post-War situation by means of the following figures :—

	Imports.	Exports.	Excess of Exports.	Bark used.	Bark produced.
1911 . . . . .	3,600	12,700	9,100	27,100	36,200
1912 . . . . .	6,000	8,400	2,400	26,700	29,100
1913 . . . . .	3,900	7,200	3,300	25,500	28,800
12 months ending June, 1920 :	3,900	3,600	300	32,000	31,700
"      "      "      1921 .	2,400	3,300	900	27,300	28,200
"      "      "      1922 .	1,700	900	800	30,800	30,000

In the three years preceding the War there was an excess of exports averaging about 5,000 tons per year. In the three years following the War exports and imports approximately balanced. The statistics would indicate a steadily increasing dependency on external sources of supply, but a forecast of the future which omitted to study the probable tendency of prices would certainly be deficient. Australia has imported bark because it has been available at prices below those of the native supplies ; if the price of the African bark rises it may be possible to satisfy the whole of the requirement of her tanners at

prices below those at which bark can be imported. The price of South African bark has been low for the past two years ; so low, indeed, that many plantations have not been replanted. The evidence is that supplies in the next few years will be below those of the past three or four years, and as there seems to be no reason for a falling off in demand there is likely to be an increase in price maintained over an extended period (already, early in 1924, there are symptoms of this). If this view is correct, it would seem likely that Australia will import less bark and may be in a position to export more, and that her own wattle industry will revive. If the price rises sufficiently export to Europe may start again (exports of recent years have been almost entirely to New Zealand), and in this connection the following figures giving the values per ton of the imports and exports over a series of years are of interest :—

		Value per ton of Imports and Exports of Bark.	
		Imports.	Exports.
		£	£
1911	. . . .	8.6	8.2
1912	. . . .	8.6	8.6
1913	. . . .	7.2	8.4
1914-15	. . . .	7.5	8.2
1915-16	. . . .	7.8	8.8
1916-17	. . . .	6.9	9.7
1917-18	. . . .	7.0	9.4
1918-19	. . . .	8.5	10.3
1919-20	. . . .	8.6	12.2
1920-21	. . . .	8.3	14.3
1921-22	. . . .	9.3	13.9

Before the War the import and export values did not widely differ ; since the War, however, the export prices have been much higher, the explanation apparently being associated with the fact that Australia imports direct from South Africa but exports to New Zealand, which country does not import direct from South Africa.

The figures previously given show that the consumption of bark in the three post-War years was 12 per cent in excess of the consumption in the three pre-War years. The corresponding increase in the consumption of hides and skins was about 20 per cent.

The position of Australia with regard to raw materials may be summarised as follows for 1921-22 :—

	Hides and Skins. £(000)	Tanning Materials. £(000)	Total. £(000)
Production . . . .	4,600	360	4,960
Imports . . . .	480	20	500
Exports . . . .	1,910	10	1,920
Consumption . . . .	3,170	370	3,540

## LEATHER PRODUCTION

Table E 18 gives a few particulars of the tanning establishments in the Dominion in 1921-22. There were in all 164 tanneries employing 4,438 work-people; 102 of these, however, employed less than 20 each; 10 of them employed more than 100 employees, and the average number for these 10 was 156—quite a substantial number of employees for a tan-yard. Reference has already been made to the number of hides and skins tanned and to the quantity of bark consumed. Table E 20 shows the value of leather produced under the two headings (a) sole and belting, kip, calf and other; (b) basils, i.e. from sheepskins. The average value of the former for 1912 and 1913 was £2,700,000 and for 1920-21 and 1921-22 was £5,250,000, an increase of 95 per cent, but owing to the different price levels during the periods compared this probably represented only a small increase in quantity. The basils produced in 1912 and 1913 averaged £197,000, the figures for 1920-21 and 1921-22 averaging £357,000, or an increase of 80 per cent. Table E 19 shows that for 1921-22 the total value of the production of tanneries was £5,450,000, the value of the materials used being £3,680,000, or rather less than 70 per cent of the output. For the year 1913, the corresponding output was £3,030,000, the materials used being valued at £2,400,000, or about 80 per cent of the output.

Table E 21 shows for 1913 and 1921 the value of the leather exported, and no details of quantities or of varieties are available. From Tables E 22 to 27 the values of the corresponding imports are obtained. A comparison of production, imports, and exports can accordingly be made as follows:—

	1913 £(000)	1921-22 £(000)
Production of leather . . .	3,030	5,450
Exports „ „ . . .	628	738
Imports „ „ . . .	393	221
Consumption „ . . .	2,795	4,933

In 1913 the imports were 14 per cent of the consumption; in 1921-22 they were 4½ per cent. In 1913, again, the exports were 21 per cent of the production; in 1921-22 the corresponding proportion was less than 14 per cent. As has been previously mentioned, this proportion of exports is the highest for any large leather-producing country, with the probable exception of India, for which no production figures are available, and the circumstances of which are vastly different from other countries producing leather. The corresponding figures of production for other parts of the Empire are given in the appropriate sections, and are summarised in Section A.

The figures of the imports and exports of leather cannot be given in the same detail as in the case of the United Kingdom and some of the other Dominions. The statistical basis of the import and export classifications is, to some extent, determined by the import tariff, which is given in detail in the Appendix on page 249. Moreover, direct comparison between 1913 and 1921-22 is rendered difficult by change in the form of returns.

Comparison of the imports are shown in detail in Tables E 22 to 27. The imports of sole leather are very small, the general tariff being 35 per cent and the Empire preferential tariff 25 per cent. There is a small importation of so-called green-hide leather, the general and preferential tariff in this case being 46 per cent and 30 per cent respectively, and a very small importation of belting butts. There is a substantial importation of rough-tanned sheep- and goatskins, shown in detail in Table E 23, and amounting to £31,000 in 1921-22, most of this coming from the United Kingdom and New Zealand. A substantial amount of this leather enters free, in 1921-22 about one-sixth being subject to duty of 10 per cent. The type of leather on which Australia is most dependent for imported supplies is patent and enamelled leather. Of this, over 2,000,000 feet were imported in 1913 and nearly 1,200,000 feet in 1921-22 (compared with 2,400,000 feet in 1920-21). Particulars of these imports are given in Table E 24, from which it will be noted that practically the whole imports now came from the United States, though before the War 40 per cent came from Germany. The general rate of duty on this leather is 6d. per square foot, or 35 per cent (whichever is the greater), the preferential tariff being 3d. per square foot, or 25 per cent. In 1921-22 more than three-quarters of the imports were subject to the *ad valorem* duty. The only other type of leather specifically referred to in the import returns is "Calf, other than Patent and Enamelled" (see Table E 25), and this is probably mainly box and willow calf upper leather, though some rough-tanned calf may be included. This leather, subject to a general tariff of 35 per cent and a preferential one of 25 per cent, came almost entirely from the United States in 1921-22 and amounted to about £18,000. In 1913, however, Germany supplied more than 50 per cent.

More than half the imports of leather are included under the heading "Leather not otherwise specified." This includes glacé kid upper leather, which is subject to a general duty of 1s. per square foot, or 35 per cent, or a preferential duty of 9d. per square foot, or 25 per cent. In 1921-22 rather more than one-half paid duty on the *ad valorem* basis. The details of these imports for 1913 and 1921-22 are shown in Table E 26; 70 per cent in 1913, and nearly the same proportion in the post-War years came from the United States, the share of the United Kingdom being about 15 per cent.

The information available regarding leather exports is very meagre, sole leather only being specifically referred to (in 1921-22 only, but not in 1913), and leather to a much greater value being exported as "not otherwise specified." The sole leather figures for 1921-22 are given in Table E 21*a*, and for purposes of comparison with 1913 these figures are included again in Table E 21, which gives details of total leather exports. Over 50 per cent of the sole leather exported comes to the United Kingdom, but a substantial quantity goes to Hong-Kong, Dutch East Indies, China, and New Zealand. The other leather exported also comes mainly to the United Kingdom; of the total exports nearly 70 per cent in 1913 and nearly 50 per cent in 1921-22 came to this country. Exports to New Zealand considerably increased, as did also those



to India. Further information on the trade between Australia and the countries mentioned will be found in the other sections of the book. Of the total exports, 98 per cent both in 1913 and in 1921-22 went to the other parts of the Empire.

There is not much information available also regarding the foreign trade in leather manufactures. Table E 28 gives particulars of the imports of boots, etc., in 1913 and 1921-22, but by value only, quantities not being stated in the returns. The general import tariff on boots is 45 per cent to 50 per cent, while the preferential tariff is from 35 per cent to 40 per cent. The imports, which were valued at over £480,000 in 1913, were reduced to £80,000 in 1921-22 in spite of the high price level. These figures of imports must be considered in conjunction with the corresponding figures of exports given in Table E 29, which table shows that between 1913 and 1921-22 exports of boots increased in value from £14,000 to £106,000. The chief feature of this increase was the development of a considerable trade with New Zealand, which country took £66,000 of Australian boots in 1921-22 compared with £1,100 in 1913. In the same period the exports of boots from the United Kingdom to New Zealand decreased from 1,200,000 pairs, valued at £305,000, to 210,000 pairs, valued at £103,000. The comparison of these figures shows the Australian industry in a very favourable light, but more recent experience has been much less favourable, and this development can be indicated by quoting from an article by a Melbourne correspondent published in the *Times Trade Supplement* of January 26th, 1924, as follows:—

“The Australian boot and shoe industry is rapidly losing the export trade built up during the years immediately following the war. Exports have fallen from a value of £837,322 in 1919-20 to £27,047 in 1922-23.

“During the War period, while United Kingdom manufacturers were unable to supply footwear to South Africa, New Zealand, the Pacific Islands, and Java; the requirements of these countries were drawn from Australia, and naturally the trade developed to a remarkable extent. When the trade began to slacken efforts were made to organise an export association comprising most of the large manufacturers. Trade jealousies, however, intruded, and the project had to be abandoned. The value of the trade is now practically the same as it was in 1913.

“While the export trade has practically ceased, the position as regards imports is causing manufacturers some anxiety. During 1914 the imports of boots and shoes amounted to £672,506, which, with duty, landing, and other charges added, meant that about £900,000 worth of footwear worn in Australia came from Britain and foreign countries. By 1918-19, however, the imports had fallen to £216,755, while the figures for 1921-22 were £154,587. Imports during the fiscal year ended June 30th last amounted to £362,780, an increase of £208,193 over the previous year, while for the first quarter of the present year the increase over the corresponding period of 1922-23 was £26,619, or 40 per cent. If this rate of increase continues the value of the imports for the complete year will be well over £500,000.

"Manufacturers complain that the duty on materials not procurable in Australia, varying from 45 to 75 per cent, is a serious handicap to the industry."

There is a fair amount of information available regarding the boot industry in Australia. Table E 18 shows that the number of establishments engaged in manufacturing boots was 744, employing altogether 20,390 workpeople. Of these, however, 350 employed less than 5 each. Fifty-seven had more than 100 employees, the average number employed in these being nearly 200. These figures show a marked development over 1913, when only 13,456 workpeople were employed in 346 establishments. Table E 19 shows that in 1921-22 the value of the materials used in the boot factories were £10,250,000, the value of the materials being rather more than 50 per cent of the products. For 1913 the value of the products was £4,000,000 from materials valued at £2,300,000, the latter being 58 per cent of the former.

The increase in the output of boots was much less than the increase (over 50 per cent) in employees, the figures being as follows :—

	Boots and Shoes. Pairs (000)	Slippers. Pairs (000)	Total. Pairs (000)	Total. Value (£000)
1911 . . .	10,800	700	11,500	3,600
1912 . . .	10,600	700	11,300	3,700
1913 . . .	10,400	600	11,000	3,900
1919-20 . . .	12,300	1,100	13,400	9,700
1920-21 . . .	10,300	1,100	11,400	7,500
1921-22 . . .	13,200	1,500	14,700	9,000

Taking the total number of pairs of boots, shoes, and slippers, the average of the three post-War years was about 17 per cent above the average of the three pre-War years. The number of pairs per employee in 1913 was about 800 and in 1921-22 was about 700. In the United States in 1909 the number was 1,550 per person employed and in 1919 was slightly higher. In 1913 the import of boots, etc., was about 13 per cent of the production, but in 1921-22 less than 1 per cent.

#### LEATHER BELTING AND OTHER LEATHER MANUFACTURES

Similar progress is to be reported in the case of leather belting and other leather manufactures. The number of establishments engaged in 1913 was 67, employing 1,200 workpeople. In 1921-22 there were 115 establishments employing over 2,400 workpeople, or double the number employed in 1913. The production of these in 1913 was £560,000 from materials valued at £360,000, and in 1921-22 the production was £1,450,000 from materials valued at £810,000. No other details are available of the production of these industries.

The imports of leather belting declined considerably between 1913 and 1921-22 (see Table E 30), the figures being £32,000 in the former year and £8,500 in the latter. Most of the belting was imported from the United Kingdom. The decline in the imports of belting other than leather was not so marked,

the figures being £77,000 and £61,000 respectively, most of it coming from the United Kingdom (see Table E 31). The exports of leather belting, though small in bulk, increased from £6,000 to £12,000 in the period in question (see Table E 32).

No other manufactures of leather are specified in the Trade Returns. The total imports of leather manufactures "not otherwise specified" were valued at £56,000 in 1913 and £73,000 in 1921-22 (see Table E 34), most of it coming from the United Kingdom. The corresponding exports of leather manufactures "not otherwise specified" were £12,000 in 1913 and £23,000 in 1921-22, these going chiefly to New Zealand and the Pacific Islands.

A little information is available regarding the Australian industry in harness and saddlery. The number of establishments in 1913 was 234 and in 1922 158. The corresponding number of workpeople were 2,538 and 1,866, showing a substantial reduction under both heads. The value of the products from these were valued at £720,000. For 1921-22 the figures were £480,000 and £92,000 respectively.

The position regarding production and consumption of leather goods in 1921-22 may be summarised as follows:—

	Value £
Production . . . . .	12,600,000
Imports . . . . .	270,000
Exports . . . . .	150,000
Consumption . . . . .	12,720,000

# AUSTRALIA

237

TABLE E 1  
EXPORTS OF ANIMAL PRODUCTS

Article.	QUANTITIES					
	1911	1912	1913	1919-20	1920-21	1921-22
Bones (cwt.) . . . . .	19,273	22,851	41,175	33,689	27,680	24,932
Glue pieces (cwt.) . . . . .	29,872	33,933	38,934	8,803	3,480	5,754
Hair (lb.) (ooo) . . . . .	597	558	546	743	270	109
Hoofs (cwt.) . . . . .	8,832	10,652	12,911	11,026	8,940	11,003
Horns . . . . .	Not given by quantities					
Cattle hides, No. (ooo) } . . . . .	549	821	1,068	569	262	446
Calfskins, No. (ooo) } . . . . .				175	47	89
Horse-hides No. . . . .	2,070	12,566	5,150	4,403	499	1,172
Sheepskins, No. (ooo) . . . . .	9,914	10,936	11,104	10,223	5,183	7,387
Rabbit and hareskins (cwt.) (ooo) . . . . .	93	88	87	128	50	74
Other hides and skins . . . . .	Not given by quantities					

TABLE E 2  
EXPORTS OF ANIMAL PRODUCTS

Article.	VALUE £(ooo)					
	1911	1912	1913	1919-20	1920-21	1921-22
Bones . . . . .	10	13	23	34	24	21
Glue pieces . . . . .	14	18	24	16	8	9
Hair . . . . .	33	41	37	77	36	13
Hoofs . . . . .	3	5	6	15	9	7
Horns . . . . .	27	32	32	55	31	35
Cattle hides . . . . .	610	999	1,655	1,504	375	539
Calfskins . . . . .				163	15	28
Horse-hides . . . . .	1	8	3	7	—	1
Sheepskins . . . . .	1,614	2,004	2,489	2,599	1,242	1,353
Rabbit- and hareskins . . . . .	499	577	621	3,672	976	788
Other hides and skins . . . . .	503	702	777	2,672	834	441
Total . . . . .	3,314	4,399	5,667	10,814	3,550	3,226

TABLE E 3  
IMPORTS OF ANIMAL PRODUCTS

Article.	QUANTITIES.					
	1911	1912	1913	1919-20	1920-21	1921-22
Bones (cwt.) . . . . .	2,122	1,966	3,327	4,491	3,520	3,214
Glue pieces (cwt.) . . . . .	661	900	637	645	7,400	767
Hair (lb.) . . . . .	218,937	495,454	266,531	133,453	169,290	234,896
Hoofs (cwt.) . . . . .	215	236	435	544	1,360	388
Horns . . . . .	Not given by quantities					
Cattle hides (No.) . . . . .	96,754	86,247	133,384	170,450	224,119	243,251
Calfskins (No.) . . . . .				35,212	89,323	208,122
Horse-hides (No.) . . . . .	1,172	1,433	1,809	3,213	4,155	4,304
Sheepskins (No.) . . . . .	165,045	284,896	106,061	79,254	65,718	606,691
Rabbit- and hareskins (cwt.) . . . . .	169	122	149	58	191	191
Other hides and skins . . . . .	Not given by quantities					

## LEATHER, HIDES, AND SKINS

TABLE E 4  
IMPORTS OF ANIMAL PRODUCE

Article.	VALUE					
	1911	1912	1913	1919-20	1920-21	1921-22
Bones . . . . .	398	466	888	2,696	1,896	1,470
Glue pieces . . . . .	241	229	288	715	7,742	816
Hair . . . . .	7,533	11,530	8,836	9,667	7,712	6,425
Hoofs . . . . .	122	122	169	923	339	359
Horns . . . . .	1,803	1,559	1,612	2,533	1,562	517
Cattle hides . . . . .	143,296	134,933	238,543	552,187	465,979	364,593
Calfskins . . . . .				27,728	34,481	68,421
Horse-hides . . . . .	597	1,248	1,237	4,980	3,900	4,143
Sheepskins . . . . .	10,693	15,470	8,221	13,628	14,294	48,239
Rabbit- and hareskins . . . . .	1,318	871	1,143	1,934	6,939	3,470
Other hides and skins . . . . .	25,784	53,959	31,322	403,050	118,486	152,235
Total . . . . .	191,785	219,487	292,259	1,019,741	663,330	650,688

TABLE E 5  
EXPORTS FROM AUSTRALIA OF SHEEPSKINS WITH WOOL

Total Exports : 10,949,232 (£2,482,059) in 1913, 7,270,660 (£1,346,582) in 1921-22.  
 To Empire Countries : 3,861,161 (£804,432) in 1913, 3,136,863 (£660,714) in 1921-22.  
 (*United Kingdom*) : 3,861,161 (£804,432) in 1913, 3,107,112 (£654,748) in 1921-22.  
 To Foreign Countries : 7,087,071 (£1,677,627) in 1913, 4,133,797 (£685,868) in 1921-22.  
 (*Belgium*) : 996,821 (£335,569) in 1913, 445,372 (£88,427) in 1921-22.  
 (*France*) : 5,932,257 (£1,315,156) in 1913, 3,227,201 (£533,165) in 1921-22.  
 (*United States*) : 99,037 (£15,127) in 1913, 387,773 (£52,009) in 1921-22.

TABLE E 6  
EXPORTS FROM AUSTRALIA OF SHEEPSKINS WITHOUT WOOL

Total Exports : 155,702 (£7,062) in 1913, 116,553 (£6,880) in 1921-22.  
 To Empire Countries : 128,578 (£5,130) in 1913, 52,998 (£2,457) in 1921-22.  
 (*United Kingdom*) : 128,578 (£5,130) in 1913, 42,078 (£1,738) in 1921-22.  
 To Foreign Countries : 27,124 (£1,932) in 1913, 63,555 (£4,423) in 1921-22.  
 (*United States*) : 21,760 (£1,550) in 1913, 56,559 (£4,006) in 1921-22.

TABLE E 7

IMPORTS INTO AUSTRALIA OF SHEEPSKINS WITH WOOL

Total Imports : 2,289 (£475) in 1913, 87,669 (£6,326) in 1921-22.  
 From Empire Countries : 1,669 (£356) in 1913, 87,274 (£6,299) in 1921-22.  
 (*New Zealand*) : 547 (£107) in 1913, 68,836 (£5,566) in 1921-22.  
 (*Straits Settlements*) : 17,758 (£667) in 1921-22.  
 From Foreign Countries : 620 (£119) in 1913, 395 (£27) in 1921-22.

TABLE E 8

IMPORTS INTO AUSTRALIA OF SHEEPSKINS WITHOUT WOOL

Total Imports : 103,772 (£7,746) in 1913, 519,022 (£41,913) in 1921-22.  
 From Empire Countries : 101,518 (£7,599) in 1913, 519,022 (£41,913) in 1921-22.  
 (*New Zealand*) : 100,694 (£7,547) in 1913, 510,378 (£40,657) in 1921-22.  
 From Foreign Countries : 2,254 (£147) in 1913.

TABLE E 9

IMPORTS INTO AUSTRALIA OF SHEEPSKINS, NOT OTHERWISE SPECIFIED

Total Imports : £31,322 in 1913, £152,235 in 1921-22.  
 From Empire Countries : £29,833 in 1913, £146,842 in 1921-22.  
 (*India*) : £20,018 in 1913, £136,290 in 1921-22.  
 (*New Zealand*) : £8,048 in 1913, £6,770 in 1921-22.  
 From Foreign Countries : £1,489 in 1913, £5,393 in 1921-22.

TABLE E 10

PARTICULARS OF LIVE STOCK ON 31ST DECEMBER, 1913 AND 1921-22

		1921-22	31st Dec., 1913
Horses		2,438,182	2,521,983
Cattle, dairy, in milk	1,670,299		1,533,595
" " dry	672,922		534,600
Other cattle	12,698,088		
		14,441,309	9,415,687
Sheep		82,226,470	85,057,402
Pigs		960,385	800,505
Goats		240,908	262,272
Camels		11,738	10,822
Mules		3,723	
Donkeys		11,411	8,215
Ostriches		780	1,908
1921 Sheep born (exclusive of Victoria)		18,098,000	
Out of sheep population of		69,900,000	
1921 Calves born (exclusive of Victoria)		2,854,000	
Out of cattle population of		12,691,000	

TABLE E 11

## EXPORTS FROM AUSTRALIA OF CALFSKINS (1921 ONLY)

Total Exports : 88,721 (£28,415) in 1921-22.  
 To Empire Countries : 22,421 (£4,129) in 1921-22.  
 (*United Kingdom*) : 16,320 (£2,431) in 1921-22.  
 (*Hong-Kong*) : 6,095 (£1,695) in 1921-22.  
 To Foreign Countries : 66,300 (£24,286) in 1921-22.  
 (*Germany*) : 4,280 (£1,004) in 1921-22.  
 (*United States*) : 60,660 (£22,860) in 1921-22.

TABLE E 12

## EXPORTS FROM AUSTRALIA OF CATTLE HIDES

Total Exports : 1,067,925 (£1,654,878) in 1913, 446,118 (£529,920) in 1921-22.  
 To Empire Countries : 376,059 (£603,851) in 1913, 246,738 (£301,280) in 1921-22.  
 (*United Kingdom*) : 358,499 (£578,933) in 1913, 230,333 (£274,675) in 1921-22.  
 (*Canada*) : 11,205 (£16,622) in 1913, 11,364 (£21,349) in 1921-22.  
 (*New Zealand*) : 6,103 (£8,094) in 1913, 338 (£844) in 1921-22.  
 (*Hong-Kong*) : 3,991 (£3,762) in 1921-22.  
 To Foreign Countries : 691,866 (£1,051,027) in 1913, 199,380 (£228,640) in 1921-22.  
 (*Belgium*) : 243,468 (£385,095) in 1913, 31,092 (£37,449) in 1921-22.  
 (*France*) : 16,208 (£20,078) in 1913, 5,174 (£6,291) in 1921-22.  
 (*Germany*) : 204,553 (£338,410) in 1913, 56,814 (£56,627) in 1921-22.  
 (*Italy*) : 85,984 (£102,834) in 1913, 28,082 (£26,169) in 1921-22.  
 (*Japan*) : 155 (£335) in 1913, 8,089 (£6,828) in 1921-22.  
 (*Sweden*) : 1,000 (£1,978) in 1913, 5,550 (£6,984) in 1921-22.  
 (*United States*) : 136,687 (£196,583) in 1913, 59,141 (£80,405) in 1921-22.

TABLE E 13

## EXPORTS FROM AUSTRALIA OF HORSE-HIDES

Total Exports : 5,150 (£3,093) in 1913, 1,172 (£858) in 1921-22.  
 To Empire Countries : 2,050 (£1,262) in 1913, 1,172 (£83) in 1921-22.  
 (*United Kingdom*) : 2,050 (£1,262) in 1913, 172 (£83) in 1921-22.  
 To Foreign Countries : 3,100 (£1,831) in 1913, £775 in 1921-22.  
 (*Germany*) : 2,035 (£1,195) in 1913.

# AUSTRALIA

241

TABLE E 14

## EXPORTS FROM AUSTRALIA OF HIDES AND SKINS, NOT OTHERWISE SPECIFIED

Total Exports : £777,345 in 1913, £2,634 in 1921-22.  
 To Empire Countries : £350,329 in 1913, £959 in 1921-22.  
 (*United Kingdom*) : £333,033 in 1913, £554 in 1921-22.  
 (*Canada*) : £16,736 in 1913.  
 To Foreign Countries : £427,016 in 1913, £1,675 in 1921-22.  
 (*Belgium*) : £63,220 in 1913.  
 (*France*) : £8,728 in 1913.  
 (*Germany*) : £90,625 in 1913.  
 (*Italy*) : £6,088 in 1913.  
 (*United States*) : £258,338 in 1913, £823 in 1921-22.

TABLE E 15

## IMPORTS INTO AUSTRALIA OF CATTLE HIDES AND SKINS

Total Imports : 133,384 (£238,543) in 1913 ; 243,251 (£364,593) in 1921-22.  
 From Empire Countries : 95,429 (£154,325) in 1913, 191,012 (£260,091) in 1921-22.  
 (*United Kingdom*) : 1,210 (£3,768) in 1913, 3,830 (£11,749) in 1921-22.  
 (*New Zealand*) : 90,639 (£147,041) in 1913, 182,032 (£241,399) in 1921-22.  
 (*Pacific Islands*) : 3,551 (£3,461) in 1913, 4,895 (£6,605) in 1921-22.  
 From Foreign Countries : 37,955 (£84,218) in 1913, 52,239 (£104,502) in 1921-22.  
 (*Pacific Islands*) : 17,638 (£19,495) in 1913, 19,300 (£21,498) in 1921-22.  
 (*Portugal*) : 12,227 (£38,352) in 1913, 8,264 (£35,284) in 1921-22.  
 (*Italy*) : 6,250 (£20,577) in 1913, 8,551 (£32,978) in 1921-22.  
 (*Netherlands East Indies*) : 14,082 (£5,289) in 1921-22.

TABLE E 16

## IMPORTS INTO AUSTRALIA OF HORSE-HIDES

Total Imports : 1,809 (£1,237) in 1913, 4,304 (£4,143) in 1921-22.  
 From Empire Countries : 1,805 (£1,234) in 1913, 1,805 (£1,472) in 1921-22.  
 (*New Zealand*) : 1,748 (£1,066) in 1913, 1,694 (£1,284) in 1921-22.  
 From Foreign Countries : 4 (£3) in 1913, 2,499 (£2,671) in 1921-22.  
 (*United States*) : 2,499 (£2,671) in 1921-22.

TABLE E 17

## IMPORTS INTO AUSTRALIA OF TANNING BARK

Total Imports : 77,689 cwt. (£27,987) in 1913, 34,340 cwt. (£15,954) in 1921-22.  
 From Empire Countries : 75,909 cwt. (£27,425) in 1913, 34,340 cwt. (£15,954) in 1921-22.



## LEATHER, HIDES, AND SKINS

(South Africa): 75,411 cwt. (£27,243) in 1913, 32,540 cwt. (£15,450) in 1921-22.

(Papua): 1,800 cwt. (£498) in 1921-22.

From Foreign Countries: 1,780 cwt. (£562) in 1913.

(United States): 1,115 cwt. (£316) in 1913.

TABLE E 17a

## EXPORTS FROM AUSTRALIA OF TANNING BARK

Total Exports: 17,520 cwt. (£12,200) in 1921-22.

To Empire Countries: 16,700 cwt. (£11,666) in 1921-22.

(New Zealand): 16,700 cwt. (£11,665) in 1921-22.

To Foreign Countries: 820 cwt. (£534) in 1921-22.

TABLE E 18

## IMPORTS INTO AUSTRALIA OF TANNING EXTRACT (LIQUID AND SOLID)

Total Imports: 13,860 cwt. (£22,042) in 1921-22.

From Empire Countries: 6,200 (£9,406) in 1921-22.

(United Kingdom): 4,740 cwt. (£7,383) in 1921-22.

(Straits Settlements): 920 cwt. (£1,194) in 1921-22.

From Foreign Countries: 7,660 cwt. (£12,636) in 1921-22.

(Argentine Republic): 2,500 cwt. (£3,970) in 1921-22.

(Asia Minor): 1,200 cwt. (£764) in 1921-22.

(United States): 2,540 cwt. (£5,669) in 1921-22.

TABLE E 19

## VALUE OF OUTPUT, 1921-22.

	Value of Output.	Value of Material used.	Value added by process of manufacture.	Salaries and Wages paid.	Output per employee.	Added value per employee.	Salaries and Wages per employee.	Ratio per cent Salaries and Wages to added value.	Land and Buildings.	Plant and Machinery
	£	£	£	£	£	£	£		£	£
Tanneries	5,451,596	3,684,000	1,767,596	935,009	1,228	398	219	52.90	721,699	581,008
Wool-scouring and fell-mongering	6,999,452	5,660,278	1,039,174	533,705	2,666	404	213	51.36	541,561	720,972
Bark milling	129,587	104,088	25,499	6,820	1,080	212	60	26.75	10,035	9,750
Boot and shoe factories	10,241,279	5,291,027	4,950,252	3,050,125	502	243	156	61.62	1,612,781	711,449
Furriers	367,587	207,490	160,047	60,495	667	286	120	37.80	100,875	10,482
Saddlery and harness	921,363	481,289	440,074	302,779	494	236	176	68.80	312,113	38,681
Leather belting, goods, etc.	1,453,540	812,902	640,638	327,062	602	265	143	51.05	310,904	76,251

TABLE E 20

## DEVELOPMENT OF TANNERIES AND BOOT FACTORIES

	1911	1912	1913	1918-19	1919-20	1920-21	1921-22
	(000)						
Hides and calfskins, treated . . . . .	1,276	1,446	1,422	1,742	1,994	2,023	2,329
Sheep pelts, treated . . . . .	†	5,181	4,714	4,262	8,004	5,170	5,787
Other skins . . . . .	†	486	290	1,067	1,171	884	1,027
Bark used (tons) . . . . .	27	27	25	28	32	27	31
Leather-made sole and belting kip, calf and other (£) . . . . .	2,084	2,631	2,769	4,891	8,021	5,562	4,938
Basils (£) . . . . .	201	183	211	381	681	344	370
Boots and shoes made (pairs) . . . . .	10,787	10,591	10,380	11,333	12,254	10,305	13,155
" " " (£) . . . . .	3,558	3,664	3,835	6,147	9,453	7,337	8,664
Slippers (pairs) . . . . .	691	669	636	773	1,129	1,141	1,524
" (£) . . . . .	75	65	61	133	221	206	302

† Not available.

TABLE E 21

EXPORTS FROM AUSTRALIA OF LEATHER (INCLUDING SOLE LEATHER  
FOR 1921-22)

Total Exports : £628,293 in 1913, £684,784 in 1921-22.

To Empire Countries : £567,958 in 1913, £541,812 in 1921-22.

(United Kingdom) : £419,904 in 1913, £336,765 in 1921-22.

(Hong-Kong) : £13,859 in 1913, £51,646 in 1921-22.

(India) : £3,660 in 1913, £6,628 in 1921-22.

(New Zealand) : £33,834 in 1913, £84,769 in 1921-22.

(Pacific Islands) : £1,163 in 1913, £3,531 in 1921-22.

(Straits Settlements) : £8,914 in 1913, £20,836 in 1921-22.

(Egypt) : £3,972 in 1921-22.

(South Africa) : £85,482 in 1913, £31,417 in 1921-22.

To Foreign Countries : £60,335 in 1913, £142,972 in 1921-22.

(Belgium) : £6,065 in 1913, £6,969 in 1921-22.

(China) : £11,506 in 1913, £22,074 in 1921-22.

(Japan) : £1,882 in 1913, £1,274 in 1921-22.

(Netherlands East Indies) : £25,061 in 1913, £102,189 in 1921-22.

(Pacific Islands) : £1,742 in 1913, £1,471 in 1921-22.

(Siam) : £2,544 in 1913, £2,474 in 1921-22.

(United States) : £5,169 in 1913, £49 in 1921-22.

(Germany) : £3,584 in 1913.

(Portuguese East Africa) : £2,023 in 1913.

TABLE E 21a

## EXPORTS FROM AUSTRALIA OF SOLE LEATHER (1921-22 ONLY)

Total Exports : £282,580 in 1921-22.  
 To Empire Countries : £221,949 in 1921-22.  
 (*United Kingdom*) : £152,638 in 1921-22.  
 (*Hong-Kong*) : £44,270 in 1921-22.  
 (*New Zealand*) : £20,949 in 1921-22.  
 (*Pacific Islands*) : £1,057 in 1921-22.  
 (*Straits Settlements*) : £2,098 in 1921-22.  
 To Foreign Countries : £60,631 in 1921-22.  
 (*Belgium*) : £3,474 in 1921-22.  
 (*China*) : £20,381 in 1921-22.  
 (*Netherlands East Indies*) : £33,356 in 1921-22.  
 (*Philippine Islands*) : £1,826 in 1921-22.

TABLE E 22

## IMPORTS INTO AUSTRALIA OF GREEN-HIDE LEATHER

Total Imports : £580 in 1913, £558 in 1921-22.  
 From Empire Countries : £507 in 1913, £175 in 1921-22.  
 (*United Kingdom*) : £506 in 1913, £175 in 1921-22.  
 From Foreign Countries : £73 in 1913, £383 in 1921-22.  
 (*United States*) : £73 in 1913, £383 in 1921-22.

TABLE E 23

IMPORTS INTO AUSTRALIA OF CRUST OR ROUGH-TANNED GOATSKINS,  
PERSIAN SHEEPSKINS AND SKIVERS, CHAMOIS LEATHER

Total Imports : £20,905 in 1913, £31,056 in 1921.  
 From Empire Countries : £15,714 in 1913, £28,269 in 1921-22.  
 (*United Kingdom*) : £12,140 in 1913, £16,754 in 1921-22.  
 (*India*) : £1,401 in 1913, £550 in 1921-22.  
 (*New Zealand*) : £2,022 in 1913, £10,593 in 1921-22.  
 From Foreign Countries : £5,191 in 1913, £2,787 in 1921-22.  
 (*United States*) : £1,470 in 1913, £2,387 in 1921-22.  
 (*Germany*) : £3,194 in 1913.

TABLE E 24

IMPORTS INTO AUSTRALIA OF PATENT AND ENAMELLED LEATHER

Total Imports : 2,062,440 sq. ft. (£120,114) in 1913, 1,155,147 sq. ft. (£101,880) in 1921-22.  
 From Empire Countries : 116,579 sq. ft. (£7,182) in 1913, 13,713 sq. ft. (£1,221) in 1921-22.  
 (*United Kingdom*) : 116,579 sq. ft. (£7,182) in 1913, 5,033 sq. ft. (£271) in 1921-22.  
 (*Canada*) : 8,236 sq. ft. (£919) in 1921-22.  
 From Foreign countries : 1,945,861 sq. ft. (£112,932) in 1913, 1,141,434 sq. ft. (£100,659) in 1921-22.  
 (*Germany*) : 706,726 sq. ft. (£43,061) in 1913.  
 (*United States*) : 1,235,589 sq. ft. (£69,670) in 1913, 1,136,534 sq. ft. (£100,037) in 1921-22.

TABLE E 25

IMPORTS INTO AUSTRALIA OF CALF LEATHER, OTHER THAN PATENT AND ENAMELLED

Total Imports : £29,381 in 1913, £19,764 in 1921-22.  
 From Empire Countries : £2,194 in 1913, £2,818 in 1921-22.  
 (*United Kingdom*) : £2,169 in 1913, £1,164 in 1921-22.  
 From Foreign Countries : £27,187 in 1913, £16,946 in 1921-22.  
 (*United States*) : £9,208 in 1913, £16,324 in 1921-22.  
 (*Germany*) : £16,791 in 1913.

TABLE E 26

IMPORTS INTO AUSTRALIA OF LEATHER NOT OTHERWISE SPECIFIED, INCLUDING KID LEATHER

Total Imports : £272,591 in 1913, £118,761 in 1921-22.  
 From Empire Countries : £41,977 in 1913, £43,860 in 1921-22.  
 (*United Kingdom*) : £40,574 in 1913, £16,804 in 1921-22.  
 From Foreign Countries : £230,614 in 1913, £74,901 in 1921-22.  
 (*France*) : £13,166 in 1913, £10,600 in 1921-22.  
 (*United States*) : £196,554 in 1913, £63,709 in 1921-22.  
 (*Germany*) : £18,143 in 1913.  
 (*Persia*) : £1,994 in 1913.

TABLE E 27

## IMPORTS INTO AUSTRALIA OF LEATHER BELTING BUTTS

Total Imports : £5,226 in 1913, £66 in 1921-22.  
 From Empire Countries : £5,186 in 1913, £66 in 1921-22.  
 (*United Kingdom*) : £5,186 in 1913, £66 in 1921-22.  
 From Foreign Countries : £40 in 1913.

TABLE E 28

IMPORTS INTO AUSTRALIA OF BOOTS, SHOES, SLIPPERS, CLOGS, PATTENS,  
AND ANY OTHER FOOTWEAR OF ANY MATERIAL

Total Imports : £484,239 in 1913, £82,194 in 1921-22.  
 From Empire Countries : £350,288 in 1913, £58,253 in 1921-22.  
 (*United Kingdom*) : £349,951 in 1913, £40,416 in 1921-22.  
 From Foreign Countries : £133,451 in 1913, £23,941 in 1921-22.  
 (*Czecho-Slovakia*) : £24,770 in 1913, £3,176 in 1921-22.  
 (*Belgium*) : £1,068 in 1913, £1,699 in 1921-22.  
 (*China*) : £6,053 in 1913, £682 in 1921-22.  
 (*France*) : £12,447 in 1913.  
 (*Switzerland*) : £19,639 in 1913, £1,141 in 1921-22.  
 (*United States*) : £68,664 in 1913, £15,423 in 1921-22.

TABLE E 29

## EXPORTS FROM AUSTRALIA OF LEATHER BOOTS, SHOES, AND SLIPPERS

Total Exports : £14,334 in 1913, £103,541 in 1921-22.  
 To Empire Countries : £8,760 in 1913, £88,680 in 1921-22.  
 (*New Zealand*) : £1,124 in 1913, £65,005 in 1921-22.  
 (*Pacific Islands*) : £4,823 in 1913, £15,129 in 1921-22.  
 (*Straits Settlements*) : £2,540 in 1921-22.  
 (*South Africa*) : £1,427 in 1921-22.  
 To Foreign Countries : £5,574 in 1913, £14,861 in 1921-22.  
 (*Pacific Islands*) : £5,090 in 1913, £7,306 in 1921-22.  
 (*Netherlands East Indies*) : £7,415 in 1921-22.

TABLE E 30

## IMPORTS INTO AUSTRALIA OF LEATHER BELTING

Total Imports : £31,946 in 1913, £8,976 in 1921-22.  
 From Empire Countries : £26,659 in 1913, £6,455 in 1921-22.  
 (*United Kingdom*) : £26,619 in 1913, £5,886 in 1921-22.

## AUSTRALIA

247

From Foreign Countries : £5,287 in 1913, £2,521 in 1921-22.  
 (United States) : £3,726 in 1913, £2,462 in 1921-22.  
 (Germany) : £1,302 in 1913.

TABLE E 31

### IMPORTS INTO AUSTRALIA OF BELTING (CANVAS AND COMPOSITION)

Total Imports : £77,215 in 1913, £61,740 in 1921-22.  
 From Empire Countries : £67,460 in 1913, £54,568 in 1921-22.  
 (United Kingdom) : £67,460 in 1913, £51,933 in 1921-22.  
 (Canada) : £2,545 in 1921-22.  
 From Foreign Countries : £9,755 in 1913, £7,172 in 1921-22.  
 (Germany) : £1,323 in 1913.  
 (United States) : £8,427 in 1913, £7,151 in 1921-22.

TABLE E 32

### EXPORTS FROM AUSTRALIA OF LEATHER BELTING

Total Exports : £6,380 in 1913, £12,010 in 1921-22.  
 To Empire Countries : £2,210 in 1913, £8,652 in 1921-22.  
 (India) : £210 in 1913, £154 in 1921-22.  
 (New Zealand) : £723 in 1913, £4,210 in 1921-22.  
 (Pacific Islands) : £1,082 in 1913, £2,644 in 1921-22.  
 To Foreign Countries : £4,170 in 1913, £3,358 in 1921-22.  
 (Japan) : £2,982 in 1913.  
 (Philippine Islands) : £1,014 in 1913.  
 (Netherlands East Indies) : £2,051 in 1921-22.

TABLE E 33

### IMPORTS INTO AUSTRALIA OF LEATHER MANUFACTURES, LEATHER CUT INTO SHAPE, HARNESS, RAZOR STROPS, AND WHIPS

Total Imports : £55,916 in 1913, £73,539 in 1921-22.  
 From Empire Countries : £40,034 in 1913, £67,869 in 1921-22.  
 (United Kingdom) : £39,461 in 1913, £66,239 in 1921-22.  
 From Foreign Countries : £15,882 in 1913, £5,670 in 1921-22.  
 (France) : £838 in 1913, £547 in 1921-22.  
 (Italy) : £1,020 in 1913, £324 in 1921-22.  
 (United States) : £10,005 in 1913, £4,580 in 1921-22.  
 (Germany) : £3,896 in 1913.

TABLE E 34

## EXPORTS FROM AUSTRALIA OF LEATHER MANUFACTURES

Total Exports : £12,442 in 1913, £22,199 in 1921-22.

To Empire Countries : £7,414 in 1913, £18,457 in 1921-22.

(*New Zealand*) : £3,347 in 1913, £8,081 in 1921-22.

(*Pacific Islands*) : £2,433 in 1913, £6,343 in 1921-22.

(*South Africa*) : £1,203 in 1921-22.

To Foreign Countries : £5,018 in 1913, £3,742 in 1921-22.

(*Pacific Islands*) : £4,573 in 1913, £1,746 in 1921-22.

(*Netherlands East Indies*) : £1,701 in 1921-22.

## APPENDIX

## TARIFF REGULATIONS RELATING TO IMPORTATION OF HIDES, SKINS AND LEATHER

Tariff No.		British Preferential Tariff.	Intermediate Tariff.	General Tariff.
323	Hides and skins, viz. :			
	(a) Sheepskins, raw ; goatskins, raw or pickled . . . . .	Free	Free	Free
	(b) Hides, limed or fleshed or split per hide . . . . .	3s.	3s.	3s.
324	Leather, viz. :			
	(a) Chamois leather . . . . .	20%	25%	30%
	(b) Crust or rough-tanned goatskins, Persian sheep-skins and skivers ; hogskins . . . ad. val.	10 „	10 „	10 „
	(c) (1) Patent and enamelled, per sq. ft. . . . .	4d.	6d.	6d.
	. . . . . or ad. val.	25%	30%	35%
	whichever rate returns the higher duty.			
	(2) Glacé kid, per sq. ft. . . . .	9d.	11d.	1s.
	. . . . . or ad. val.	25%	30%	35%
	whichever rate returns the higher duty.			
	(3) Calf, other than patent and enamelled, ad. val.	25 „	30 „	35 „
	(4) N.E.I. . . . . ad. val.	25 „	30 „	35 „
	(d) Belt butts . . . . .	25 „	30 „	35 „
325	(a) Leather manufactures, n.e.i., leather cut into shape ; harness, n.e.i., razor strops, whips, including handles, keepers, etc. . . . ad. val.	35 „	40 „	45 „
	(b) Harness and buggy saddles, each . . . . .	7s.	7s. 6d.	8s.
	. . . . . or ad. val.	35%	40%	45%
	whichever rate returns the higher duty.			
326	Leather, rubber, canvas and composition belting, and green hide for felting and other purposes . ad. val.	30 „	35 „	40 „
	Mangrove bark . . . . .	Free	Free	Free
	Other bark, per cwt. . . . .	3s.	3s.	3s.
	Tanning extract . . . . .	Free	15%	25%
	Slipper forms and piece goods (except slipper sole felt), suitable for boots, shoes, and slippers as prescribed by departmental by-laws . . ad. val.	Free	5 „	15 „
	Slipper sole felt . . . . . ad. val.	20%	25 „	35 „
	Goloshes, rubber, sand boots and shoes and plimsolls . ad. val.	25 „	30 „	35 „
	. . . . . or per pair	1s. 6d.	1s. 9d.	2s.
	whichever gives the higher duty.			
	Boots, shoes, slippers, clogs, pattens and other footwear (of any material), n.e.i., boot and shoe uppers and tops, cork, leather, or other socks or soles, n.e.i. . . . . ad. val.	35%	40%	45%
	(N.E.I. denotes “ not elsewhere included.”)			



## BIBLIOGRAPHY

- AUSTRALIAN TARIFF HANDBOOK. 1919.  
BULLETIN OF SCIENCE AND INDUSTRY. Melbourne. No. 1. Cattle Tick in Australia.  
BULLETIN OF SCIENCE AND INDUSTRY. Melbourne. No. 13. Cattle Tick Pest in Australia.  
OFFICIAL JOURNAL OF THE INSTITUTE OF SCIENCE AND INDUSTRY. November, 1920.  
Problems of the Tanning Industry.  
OFFICIAL JOURNAL OF THE INSTITUTE OF SCIENCE AND INDUSTRY. September, 1920. Utili-  
sation of Leather Waste.

## TRADE PAPERS

- AUSTRALASIAN LEATHER TRADES REVIEW.  
AUSTRALIAN LEATHER JOURNAL, BOOT AND SHOE RECORDER.

## OFFICIAL PUBLICATIONS

- OFFICIAL YEAR BOOK OF THE COMMONWEALTH. Annual.  
OVERSEAS TRADE OF THE COMMONWEALTH. Annual.  
PRODUCTION. Annual.  
QUARTERLY SUMMARY OF AUSTRALIAN STATISTICS. Quarterly.  
MANUFACTURING INDUSTRIES IN THE COMMONWEALTH.

SECTION F  
NEW ZEALAND

## LIST OF TABLES IN SECTION F

TABLE NO.		PAGE
F 1.	VALUES OF HIDES, SKINS, LEATHER, EXPORTED TO CERTAIN COUNTRIES, 1913 AND 1921 . . . . .	264
F 2.	PARTICULARS OF SHEEP STATISTICS, 1921 . . . . .	264
F 3.	SHEEPSKINS, WOOLLED, EXPORTS . . . . .	264
F 4.	SHEEPSKINS, PICKLED, EXPORTS . . . . .	265
F 5.	DETAILS OF CATTLE, 1922 . . . . .	265
F 6.	CATTLE AND HORSE HIDES, EXPORTS . . . . .	265
F 7.	CALFSKINS, EXPORTS . . . . .	266
F 8.	PARTICULARS OF ESTABLISHMENTS ENGAGED IN TANNING, FELLMONGER- ING, LEATHER GOODS MANUFACTURE, BOOT AND SHOE MANUFACTURE, AND SADDLERY AND HARNESS MANUFACTURE . . . . .	266
F 9.	PARTICULARS OF MATERIALS USED AND PRODUCTS OBTAINED IN TANNING AND FELLMONGERING ESTABLISHMENTS . . . . .	267
F 10.	SOLE LEATHER, EXPORTS . . . . .	267
F 11.	LEATHER FOR BELTING, EXPORTS . . . . .	267
F 12.	TANNED CALFSKINS, EXPORTS . . . . .	267
F 13.	UNDRESSED HIDE LEATHER OTHER THAN EAST INDIA KIPS, EXPORTS . . . . .	267
F 14.	TANNED GOAT AND KIDSKINS, EXPORTS . . . . .	268
F 15.	TANNED SHEEP- AND LAMBSKINS, EXPORTS . . . . .	268
F 16.	DRESSED HIDE LEATHER OTHER THAN EAST INDIA KIPS, EXPORTS . . . . .	268
F 17.	JAPANNED AND ENAMELLED LEATHER, EXPORTS . . . . .	268
F 18.	CHAMOIS LEATHER, EXPORTS . . . . .	268
F 19.	LEATHER, EXPORTS, SUMMARY FIGURES . . . . .	269
F 20.	LEATHER BELTING, EXPORTS . . . . .	269
F 21.	SKINS AND PELTS, IMPORTS . . . . .	269
F 22.	SKINS AND PELTS, IMPORTS . . . . .	269
F 23.	CATTLE AND HORSE-HIDES, IMPORTS . . . . .	270
F 24.	TANNING BARK, IMPORTS . . . . .	270
F 25.	TANNING MATERIALS OTHER THAN BARK, IMPORTS . . . . .	270
F 26.	SOLE LEATHER, IMPORTS . . . . .	271
F 27.	BELT, HARNESS, WELTING, STRAP, LEGGING, BAG AND BRIDLE LEATHER OTHER THAN EAST INDIA KIP, IMPORTS . . . . .	271
F 28.	TANNED CALFSKINS, IMPORTS . . . . .	271
F 29.	UNDRESSED HIDE LEATHER OTHER THAN EAST INDIA KIP, IMPORTS . . . . .	271
F 30.	TANNED GOAT AND KIDSKINS, IMPORTS . . . . .	272
F 31.	TANNED SHEEP- AND LAMBSKINS, IMPORTS . . . . .	272
F 32.	DRESSED EAST INDIA KIP LEATHER, IMPORTS . . . . .	272
F 33.	DRESSED HIDE LEATHER OTHER THAN EAST INDIA KIP, IMPORTS . . . . .	272
F 34.	JAPANNED AND ENAMELLED LEATHER, IMPORTS . . . . .	273

# LIST OF TABLES IN SECTION F

253

TABLE NO.		PAGE
F 35.	CHAMOIS LEATHER, IMPORTS . . . . .	273
F 36.	LEATHER NOT OTHERWISE SPECIFIED, IMPORTS . . . . .	273
F 37.	BOOT AND SHOE FACTORIES, PARTICULARS OF MATERIALS USED AND PRODUCTS . . . . .	273
F 38.	BOOT AND SHOE, IMPORTS . . . . .	274
F 39.	BOOT AND SHOE, IMPORTS . . . . .	274
F 40.	SADDLERY AND HARNESS, IMPORTS . . . . .	274
F 41.	LEATHER BELTING, IMPORTS . . . . .	274
F 42.	BELTING OTHER THAN LEATHER, IMPORTS . . . . .	275
F 43.	LEATHER BAGS, IMPORTS . . . . .	275
F 44.	PORTMANTEAUX AND TRUNKS, LEATHER, IMPORTS . . . . .	275
F 45.	LEATHER AND LEATHER GOODS, IMPORTS, SUMMARY FIGURES . . . . .	275





## SECTION F

### NEW ZEALAND

NEW ZEALAND's best-known contribution to the leather industry lies in her supplies of sheepskins. She has, however, a substantial tanning industry of her own, and in addition exports hides to considerable value.

A summary of her exports is given in Table F 1, from which the following figures have been taken to illustrate the magnitude of her export trade in various articles :—

	1913 £(000)	1921 £(000)
Calfskins . . . . .	50	145
Cattle hides . . . . .	262	431
Woolled sheepskins . . . . .	223	15
Pickled „ . . . . .	577	957
Leather . . . . .	33	96
	1,145	1,644

The value of the hides, skins, etc., used in New Zealand tanneries is estimated at £270,000 in 1913 and £400,000 in 1921. The total contribution, accordingly, of New Zealand in raw materials for the tanning industry was approximately £1,400,000 in 1913 and £1,950,000 in 1921. The position of New Zealand in comparison with other Empire countries in this respect has been referred to in Section A. The most convenient order for reviewing the facts will be : (i) sheep- and lambskins ; (ii) hides and calfskins ; (iii) leather, and (iv) leather goods.

#### SHEEP AND LAMBSKINS

The Stock Act of 1908 (No. 187) requires that every owner of sheep shall make a return each year of the number of sheep in his possession on April 30th. Also that every person who slaughters sheep for human consumption or for boiling down, or for meat preserving, shall provide particulars of the number of sheep slaughtered in the twelve months previous to 30th April. The growth in the numbers of sheep and lambs in New Zealand in the past fifty years has been as follows :—

1871 . . . . .	9,700,000
1881 . . . . .	12,985,000
1891 . . . . .	18,128,000
1901 . . . . .	19,355,000
1911 . . . . .	23,996,000
1921 . . . . .	22,222,000

## LEATHER, HIDES, AND SKINS

Details of the sheep statistics for 1921 are given in Table F 2. The difference between the pre-War and post-War numbers of sheep and lambs—1,774,000 or over 7 per cent—was less than the corresponding falling off in sheep in Great Britain (20 per cent) and in Australia (3 per cent).

The figures of sheep and lambs slaughtered for food purposes throughout the island were as follows :—

	Sheep.	Lambs.	Total.
1913 . . .	3,307,000	3,506,000	6,813,000
1922 . . .	4,127,000	5,085,000	9,212,000

In spite of the substantial decrease in the flocks the slaughtering increased considerably between 1913 and 1922. There is a well-marked differentiation in the sheepskin trade between the North Island and the South Island sheep. Both classes of sheep are crossbred, and their pelts are accordingly of a superior quality. The North Island pelt, however, is considerably heavier than that from the South Island, and is used for different purposes.

The annual killings of the New Zealand freezing companies show a great difference in proportion of sheep and lambs slaughtered in the two islands, the figures for 1913 and 1922 being as follows :—

	Sheep (000)			Lambs (000)			Grand Total. (000)
	N. Island.	S. Island.	Total.	N. Island.	S. Island.	Total.	
1913 . . .	1,793	465	2,259	1,455	2,395	3,849	6,108
1922 . . .	2,209	499	2,708	2,047	2,405	4,452	7,160

The number of sheep and lambs in the North Island in 1922 was 12,000,000 and in the South Island 10,000,000.

The practice in the South Island is to kill considerably more lambs than in the North.

The New Zealand skins used in Great Britain are mainly North Island sheep and lambs, the former being in demand by splitters and the latter being required for the manufacture of roller leather for use in cotton mills. In some years the consumption of these lambskins for roller leather has approached 500,000 skins, the actual numbers used varying according to the supplies of suitable domestic pelts in Great Britain.

The South Island sheep and lambs and the remainder of the North Island production are put to many purposes, substantial quantities being used for light upper leather. Considerable quantities were used for jerkin leather during the War, though the quality of the skin was considered by many judges to be too good for this purpose.

Details of the exports of woolled skins are given in Table F 3 and of pickled skins in Table F 4. Ninety-eight per cent of the woolled skins went to Empire countries (most to the United Kingdom, but an appreciable number to Canada) in 1913 and 94 per cent in 1922. At times, too, many of the skins, after fellmongering, are exported from Great Britain as pickled pelts, but no statistics of this trade are available, the official figures of the British Customs including domestic skins and New Zealand skins together. The re-exports from Great Britain, both of the woolled skins and those fellmongered here, are mainly to United States.

The exports of the pickled skins are of much greater volume, and, as shown by Table F 4, large quantities go direct to the United States, and this trade has shown a great increase since 1913. In that year 1,640,000 pickled skins were exported direct to the United States, but by 1922 this figure had increased to 5,340,000. In the same period the direct shipments to Great Britain decreased from 5,440,000 to 3,200,000. A considerable quantity, too, of the pickled skins coming here are subsequently re-exported, mainly to the United States.

Australia and Canada are also becoming substantial users of New Zealand pickled pelts, Australia's takings increasing from 105,000 in 1913 to 715,000 in 1922, while those of Canada (direct) increased from 47,000 in 1913 to 242,000 in 1922. Altogether direct exports to Empire countries decreased from 77 per cent in 1913 to 44 per cent in 1922. There is, also, a comparatively small import of skins and pelts (see Table F 21 and 22).

The number of sheep and lamb pelts tanned in Australia has been roughly computed at 350,000. It would appear, however, from the particulars of output of basils referred to in Table F 9 (viz. 296,000 lb. in fiscal year 1921-22) that this is on the high side, and a more conservative estimate would be between 250,000 and 300,000.

#### HIDES AND CALFSKINS

The numbers of cattle (including calves) and horses at various dates over the past fifty years have been as follows :—

	Cattle.	Horses.
1871 . . . . .	437,000	81,000
1881 . . . . .	699,000	162,000
1891 . . . . .	832,000	211,000
1901 . . . . .	1,257,000	266,000
1911 . . . . .	2,020,000	404,000
1921 . . . . .	3,323,000	332,000

Details of the cattle in 1922 are shown in Table F 5. The numbers of cattle (including calves) slaughtered in 1913, 1921, and 1922 (including about 10,000 per year by farmers for local consumption) were :—

1913 . . . . .	270,000
1921 . . . . .	377,000
1922 . . . . .	272,000

The total number of cattle hides exported in the three years were (not including calfskins and horse-hides) 169,000, 339,000, and 258,000 respectively. Even allowing for casualty hides, these figures hardly appear consistent with those slaughtered and the existence of a home tanning industry using 3,000 tons of bark per year. It is not clear if the figures of slaughter of cattle include those killed in the freezing and preserving works (in the case of sheep these figures are included). The Census of Production results, to be referred to later, are published in such manner that it is not possible to deduce from them the



numbers of hides and skins used in tanneries, and the position regarding consumption of hides and calfskins in New Zealand tanneries must of necessity be left rather vague.

The branding of hides is controlled in New Zealand under the Stock Act of 1908 (No. 187) Part V.

Anthrax is practically unknown in the Dominion, and it is said to be many years since the last slight outbreak of the disease. According to Order in Council of 1903, anthrax (known in New Zealand as "Blackleg") is subject to the regulations of the Stock Act of 1893. Further regulations were issued under the Stock Act of 1908, under which all cattle within an infected area have to be vaccinated, while removal of cattle from an infected area is restricted.

The importation of hides into New Zealand is strictly regulated, and different regulations apply to hides from Australia from those applicable to other countries.

The exports of hides (shown in detail in Table F 6) were almost entirely to the Empire—95 per cent in 1913 and 87 per cent in 1922. A comparatively small proportion of these hides comes to Great Britain, Australia taking most and Canada also a substantial quantity. The post-War figure to Australia shows a considerable increase on the pre-War figure, and in view of the probable diminution in Australia's cattle industry, she is likely to call to a greater extent still on New Zealand for hides to maintain the output of her tanneries. There is also an appreciable import of hides from many countries (Table F 23).

The raw calfskin trade of New Zealand has developed mainly into trade with Australia. In 1913 Australia took only 36,000 skins out of a total export of 179,000, but in 1922 she took no fewer than 363,000 skins of a total of 505,000. This increase can be accounted for by the development which has occurred in the production of calf upper leather in Australia under the stimulus of a protective import tariff. Canada also takes substantial quantities of New Zealand's calfskins—in 1921 and 1922 about as many as the United States. Comparatively few, however, came to this country.

The only general fact on the tanning industry which need be mentioned before passing on to deal with the statistics is that tanning is (together with fellmongering and glue manufacturing) under Section 54 of the Health Act of 1920 scheduled as an offensive trade, and the industry cannot be established in any district except with the consent of the local authority.

#### LEATHER

The New Zealand official figures of production do not give separate particulars for the tanning industry, but include these with "Fellmongering" and "Woolscouring." This fact is indicative of the general attitude taken on the tanning industry, not only in that country but also in Australia, as an adjunct to the production of hides and skins rather than as a manufacturing industry in itself. The view is that as the hides and skins are produced it would be folly not to develop on the spot those industries which consume this raw material. This view has not, however, been developed in New Zealand

to the extent it has in Australia. Table F 8 gives particulars from the censuses of 1910 and 1922 of the establishments, employees, materials used, products, etc., of the tanning, fellmongering, and woolscouring industries. This table shows substantial increases in wages paid, value of plant, and in other items, but records an apparent decrease in value of materials used and of products. This is no doubt partly due to the fact that 1922 was a "slump" year, but it is probable also that the figures for the two years are not properly comparable. More satisfactory information for a comparison of the tanning industry in 1910 with 1921-22 is contained in Table F 9, in which particulars are given of materials used and of products. This table shows that the "sheepskins operated on"—presumably the sheepskins fellmongered—were 4,400,000 in 1910 and only 2,700,000 in 1921-22. As the exports of pickled pelts were 9,500,000 in 1922 and 8,400,000 in 1921, it is clear that the production figures are defective. If, however, the number of sheep and lambs slaughtered at the freezing works (7,160,000) is added to the figure of "sheepskins operated on" and allowance made for a home consumption of about 300,000 skins, a satisfactory comparison is obtainable. No similar explanation can be given, however, for the apparent decrease in the number of "hides and pelts operated on," which decreased from 2,800,000 in 1910 to 800,000 in 1921-22. There is no ambiguity, however, about the significance of the figures for bark used, as this is used in tanneries only, the whole of which are included in the table. The quantity of bark used was 3,160 tons in 1910 but only 2,950 tons in 1921-22. The decrease in native bark used shows a similar phenomena to that in Australia. Table F 24 shows that the bark came almost entirely from Australia. While New Zealand draws her bark from Australia, the latter country is now dependent upon South Africa (see Table E 17 of the Australian section). The Census of Production gives no information of other materials used except bark, but Table F 25 shows that tanning materials other than bark to the value of £6,500 in 1913 and £25,000 in 1922 were imported. The total value of the tanning materials used in 1913 was accordingly about £36,000 and in 1921-22 about £83,000. The former figure was about 2½ per cent of the corresponding consumption in the United Kingdom (see Table B 21 of Section B) and the latter 4½ per cent.

The quantity of leather produced (presumably from hides) according to Table F 9 was about 2,130 tons in 1910 and 2,060 tons in 1921-22, the values being £326,000 and £521,000 respectively. In addition, basils weighing 106 tons, of value £14,300 in 1910 and 132 tons, of value £56,700 in 1921-22 were produced.

In proportion to her production New Zealand is both an exporter and an importer of leather on a substantial scale. There is a tax on importation of many classes of leather and of leather goods, particulars of which are included in the Appendix on page 276. Exports of sole leather are shown in Table F 10, being almost entirely to the United Kingdom, and amounting to about £30,000 per annum in 1921 and 1922. Imports of sole leather are on a larger scale. Particulars of these are given in Table F 26, and amounted to £82,000 in 1921 and £143,000 in 1922, mostly from the United Kingdom and Australia.

There is a very small export trade in leather for belting (see Table F 11), but this cannot be exactly compared with the corresponding imports, as the latter are grouped with other forms of leather in the import statistics (see (Table F 27).

In 1921 there was a substantial export of rough-tanned calfskins, almost entirely to the United Kingdom (see Table F 12), but this trade almost disappeared in 1922. On the other hand, the import of rough-tanned calfskins increased from £19,000 in 1921 to £43,000 in 1922 (see Table F 28), these coming from Australia, the United Kingdom, and the United States.

A little rough-tanned hide leather was exported in 1921, but none in 1922 (see Table F 13), while the imports of this class of leather are also quite small (see Table F 29).

Table F 14 shows the imports of tanned goat- and kidskins (presumably rough-tanned as well as dressed skins). These exports are small compared with the corresponding imports (Table F 30), which increased from £35,000 in 1921 to £64,000 in 1922, these imports (probably mainly glacé kid upper leather) coming from Australia, the United Kingdom, and the United States. There was, up to the end of 1923, a general import duty of 10 per cent *ad valorem* on the importation of glacé and suède leathers, but this was completely remitted in the case of imports from other parts of the Empire. This preference was, however, abolished as from the beginning of 1924, but may, by Order in Council, be re-established, and representations on this subject have been made by the relevant organisations, both in Australia and the United Kingdom.

The corresponding exports of tanned sheepskins and lambskins are also small (Table F 15); the imports of these were about £11,000 in 1921 and in 1922, almost entirely from Australia (see Table F 31).

Exports of dressed hide leather (Table F 16) amounted to £24,000 in 1921 and £12,000 in 1922, practically all to the United Kingdom. The corresponding imports are divided into two heads, (a) dressed East India kips (Table F 32), and (b) other dressed hide leather (Table F 33). The former is imported entirely from the United Kingdom and amounted to £4,700 in 1921 and £1,500 in 1922. The latter comes mainly from Australia and the United Kingdom, and amounted to over £18,000 both in 1921 and 1922.

In 1921 there was an export of £6,000 of japanned and enamelled leather to the United Kingdom, but apart from this the exports of this leather have amounted to a few pounds' worth only to Australia and various Pacific Islands (Table F 17). The imports, however, are substantial, amounting to £21,000 in 1921 and £37,000 in 1922, the United States being the chief supplier, followed in order by Australia, Canada, and the United Kingdom (see Table F 34).

The only other form of leather specified in the returns is chamois leather. In 1921 and 1922 there was an export of about £6,000, almost entirely to Australia (Table F 18), and an import of £3,000 in 1921 and £2,000 in 1922 from the United Kingdom and the United States (Table F 35).

Table F 36 shows an import of £4,300 in 1921 and £12,400 in 1922 of leather not otherwise specified, chiefly from Australia and the United Kingdom, but there is no corresponding table in the import returns.

## NEW ZEALAND

261

Table F 19 gives a summary of all the tables relating to the exports of leather, and shows that the total exports were £33,000 in 1913, £96,000 in 1921, and £46,000 in 1922, practically all of which went to other Empire countries (about 90 per cent to the United Kingdom). The corresponding summary figures of imports obtained from Table F 45, with the subtraction of the items for certain leather goods specified in other tables, are as follows :—

	£
1913 . . . . .	206,000
1921 . . . . .	205,000
1922 . . . . .	328,000

Over 80 per cent of these imports came from other Empire countries, the proportions of the four chief suppliers being as follows in the various years :—

	1913 Per cent.	1921 Per cent.	1922 Per cent.
United Kingdom . . . . .	58	38	54
Australia . . . . .	19	44	20
Canada . . . . .	4	3	4
United States . . . . .	12	14	19

In the whole the proportions in 1922 were not widely different from those of 1913, though a different conclusion would have been drawn from the 1921 figures.

Combining the figures of exports and of imports there would appear to be an excess of imports in the three years as follows :—

	£
1913 . . . . .	173,000
1921 . . . . .	109,000
1922 . . . . .	282,000

Averaging the 1921 and 1922 figures, and combining with the figures of production stated above, the pre-War consumption is seen to be about £510,000, and the post-War consumption about £770,000.

### LEATHER GOODS

Table F 8 gives various particulars of manufactures for (a) boot and shoe making, (b) saddlery and harness making, and (c) leather goods making.

#### BOOTS AND SHOES

The number of boot manufacturing establishments is just over 70, employing 2,070 employees in 1910 and 2,330 in 1922, the wage roll increasing from £198,000 to £380,000 in this period. The value of the materials used nearly doubled—£335,000 to £647,000—while the value of the products more than doubled—£620,000 to £1,310,000. Table F 37 gives a good deal of interesting

information about the industry. So far as leather sold by the pound is concerned (practically all sole leather) the amount of imported leather used was small (6 per cent in 1910, but 15 per cent in 1921-22). In 1910, however, more than 55 per cent of the upper leather used was imported, a proportion which has fallen to less than 40 per cent in 1921 and 1922. It appears from these figures that the native upper leather industry made considerable headway in the period in question, but the sole leather receded in comparison to the imports. The number of pairs of boots and shoes (excluding slippers) made was 1,320,000 pairs in 1910 and 1,330,000 pairs in 1921-22, but the value more than doubled.

No particulars are available of any exports of boots, but the imports are given in Tables F 38 and 39, the former dealing with boots of sizes 0 to 6, and the latter with all other boots. The total number of pairs imported was 1,650,000 in 1913 and 1,040,000 for the average of 1921-22. Thus the pre-War import was about 300,000 pairs in excess of the production, but the post-War import was about 300,000 pairs less. Before the War the imports came almost entirely from the United Kingdom. In 1921, however, there was a considerable import from Australia, which fell away in 1922, when the United Kingdom regained her position in the New Zealand market, a position which was strengthened in 1923.

#### SADDLERY AND HARNESS

The particulars given in Table F 8 show that the number of establishments manufacturing harness and saddlery fell from 117 to 73 between 1910 and 1922, the number of employees falling at the same time from 594 to 391. The materials used in the industry in 1922 were valued at £131,000 and the value of the output was £228,000. The variety of forms of production under this head render it impossible to give details of the output. No particulars are available of any exports of saddlery and harness, but imports to the value of £27,000 were received in 1921 and £9,000 in 1922, almost entirely from England (see Table F 40).

#### LEATHER GOODS MAKING

Table F 8 also includes a few particulars of leather goods manufacture. The number of establishments engaged in this work increased from 6 to 16 between 1910 and 1922, while the number of employees increased from 39 to 164. The materials used in 1922 were valued at £51,000 and the output at £98,000. Under this heading is presumably included the manufacture of leather belting. There is a very small export trade in this (Table F 20), but a much bigger import trade, £4,700 in 1913, £16,100 in 1921, and £10,900 in 1922, divided between the United Kingdom, Australia, Canada, and the United States (Table F 41). The import of machinery belting manufactured from materials other than leather was on a much bigger scale, being valued at £40,000 in 1913, £93,000 in 1921, and £62,000 in 1922 (Table F 42). Under the heading of leather goods has to be mentioned a small import of bags under 10 inches long (Table F 43), and an import of £11,000 in 1921 and

# NEW ZEALAND

263

£5,000 in 1922 of portmanteaux and trunks (Table F 44). Finally, in Table F 45, a summary, by weight and by value, of the imports of leather and leather goods (other than boots) for each of the three years is given.

The position regarding imports of leather and leather goods in the three years may be summarised as follows :—

Country.	1913 £(000)	1921 £(000)	1922 £(000)
United Kingdom . . .	487	262	704
Australia . . . . .	42	246	90
Canada . . . . .	13	9	46
Whole Empire . . . .	542	517	840
United States . . . .	36	64	104
All Foreign Countries .	52	67	109
Total . . . . .	594	584	949

The comparison of the figures for 1921 and 1922 is very striking. In 1913, 80 per cent of the imports came from the United Kingdom; on the 1921 figures, however, this country appeared to have lost its position, and was responsible for 45 per cent only of the imports. In 1922 the percentage from the United Kingdom recovered to 74, and, on the whole, this country appears to be holding its own for leather and leather goods in New Zealand.

## LEATHER, HIDES, AND SKINS

TABLE F 1  
COMPARATIVE VALUES OF EXPORTS OF HIDES, SKINS, FURS AND LEATHER TO  
VARIOUS COUNTRIES, 1913 AND 1921

£(000)

	United Kingdom.		Australia.		Canada.		Whole Empire.		United States.		All Foreign Countries.		Total.	
	1913	1921	1913	1919	1913	1921	1913	1921	1913	1921	1913	1921	1913	1921
Calfskins . . .	10	1	9	35	29	52	48	88	2	56	2	56	50	145
Cattle hides . . .	15	82	139	260	93	60	247	402	15	29	15	29	262	431
Sheepskins, woollen	182	10	1	—	33	2	217	12	7	3	7	3	223	15
Pickled sheepskins .	411	368	8	12	4	44	423	424	154	533	154	533	577	957
Rabbit-skins . . .	86	247	1	6	—	7	87	260	—	188	—	188	87	448
Leather . . .	31	84	2	9	—	—	33	93	—	3	—	3	33	96
Total . . .	735	792	160	322	159	165	1,055	1,279	178	812	178	812	1,232	2,092

TABLE F 2  
SHEEP : NUMBERS AND SLAUGHTERINGS

Year.	Number of Sheep and Lambs.			
	North Island.	South Island.	Total.	Lambs only.
1912 . . .	12,618,089	11,132,064	23,750,153	—
1913 . . .	13,145,445	11,046,365	24,191,810	—
1919 . . .	14,211,944	11,616,610	25,828,554	7,431,321
1920 . . .	13,166,750	10,753,220	23,919,970	6,317,738
1921 . . .	12,774,323	10,510,708	23,285,031	5,834,481

TABLE F 3  
EXPORTS OF SHEEPSKINS WITH WOOL

Total Exports : 933,152 skins (£223,362) in 1913, 645,002 skins (£124,229) in 1922.  
 To Empire Countries : 910,661 skins (£216,528) in 1913, 607,080 skins (£113,848) in 1922.  
 (United Kingdom) : 774,343 skins (£182,228) in 1913, 566,556 skins (£104,797) in 1922.  
 (Canada) : 132,483 skins (£33,294) in 1913, 35,084 skins (£8,523) in 1922.  
 To Foreign Countries : 22,491 skins (£6,834) in 1913, 37,922 skins (£10,381) in 1922.  
 (United States) : 22,491 skins (£6,834) in 1913, 36,877 skins (£10,268) in 1922.

## TABLE F 4

### EXPORTS OF SHEEPSKINS WITHOUT WOOL

Total Exports : 7,238,123 skins (£576,992) in 1913, 9,499 skins (£855,960) in 1922.  
 To Empire Countries : 5,592,023 skins (£423,136) in 1913, 4,160,290 skins (£369,372) in 1922.  
 (*United Kingdom*) : 5,439,219 skins (£410,853) in 1913, 3,203,247 skins (£294,137) in 1922.  
 (*Australia*) : 105,347 skins (£8,261) in 1913, 715,447 skins (£55,911) in 1922.  
 (*Canada*) : 47,457 skins (£4,022) in 1913, 241,596 skins (£19,324) in 1922.  
 To Foreign Countries : 1,646,100 skins (£153,856) in 1913, 5,339,561 skins (£486,588) in 1922.  
 (*United States*) : 1,644,761 skins (£153,753) in 1913, 5,339,349 skins (£486,554) in 1922.

## TABLE F 5

### PARTICULARS OF CATTLE

PARTICULARS OF CATTLE		No. of Cattle on 31st January, 1922.
Bulls two years old and over for stud—for beef purposes	.	14,152
"    "    "    for dairy purposes	.	44,028
Steers two years old and over <sup>1</sup>	.	540,742
"    and bulls one and under two years old	.	207,647
Cows and heifers two years old and over for dairying—in milk	.	998,400
"    "    "    "    dry	.	118,428
Other cows and heifers, two years old and over	.	474,090
Heifers one and under two years old	.	371,850
Calves (heifer, steer, and bull) under one year old	.	520,610
"    "    "    "    "    in boroughs, etc.	.	33,276
		<hr/> 3,323,223

<sup>1</sup> Including bulls not kept for stud purposes.

## TABLE F 6'

### EXPORTS OF HIDES, CATTLE AND HORSE

Total Exports : 169,333 skins (£261,744) in 1913, 258,440 skins<sup>1</sup>, (£358,426) in 1922.  
To Empire Countries : 160,011 skins (£246,749) in 1913, 224,621 skins (£308,971) in 1922.  
(United Kingdom) : 8,962 skins (£14,577) in 1913, 25,964 skins (£31,730) in 1922.

<sup>1</sup> In 1922, of the total of 258,440 only 973 were horse-hides of value £407, which were exported to Australia.



## LEATHER, HIDES, AND SKINS

(Australia): 90,853 skins (£138,720) in 1913, 148,938 skins (£200,090) in 1922.  
 (Canada): 60,196 skins (£93,452) in 1913, 49,719 skins (£77,151) in 1922.

To Foreign Countries: 9,322 skins (£14,995) in 1913, 33,819 skins (£49,455) in 1922.

(United States): 9,318 skins (£14,988) in 1913, 33,819 skins (£49,455) in 1922.

TABLE F 7

## EXPORTS OF CALFSKINS AND OPOSSUM SKINS

Total Exports: 179,461 skins (£50,521) in 1913, 504,566 skins (£166,533) in 1922.

To Empire Countries: 170,903 skins (£48,380) in 1913, 443,414 skins (£146,551) in 1922.

(United Kingdom): 42,210 skins (£10,185) in 1913, 29,519 skins (£12,273) in 1922.

(Australia): 35,928 skins (£9,114) in 1913, 362,860 skins (£119,397) in 1922.

(Canada): 92,765 skins (£29,081) in 1913, 51,035 skins (£14,881) in 1922.

To Foreign Countries: 8,557 skins (£2,141) in 1913, 61,152 skins (£19,982) in 1922.

(United States): 8,557 skins (£2,141) in 1913, 61,152 skins (£19,982) in 1922.

TABLE F 8

## PARTICULARS OF MANUFACTURES AND PRODUCTS

	Saddlery and Harness Making.		Leather Goods Making.		Tanning, Fellmougering, and Woollscouring.		Boot and Shoe Making.	
	1910-11	1921-22	1910-11	1921-22	1910-11	1921-22	1910-11	1921-22
No. of establishments	117	73	6	16	79	58	74	73
Materials used £	114,993	131,378	10,496	51,368	1,788,772	1,117,667	334,880	647,070
Products £	220,364	228,035	16,585	97,836	2,036,770	1,625,861	619,873	1,310,059
Total employees	594	391	39	164	1,372	1,290	2,072	2,331
Total salaries and wages paid £	62,482	76,726	3,350	27,250	136,875	268,976	197,793	380,339
Approx. value of land and buildings £	131,908	145,839	6,119	50,429	171,199	263,608	136,353	238,894
Approx. value of machinery, plant, tools, and imple- ments £	11,066	11,849	492	5,120	90,257	140,243	90,704	117,971

TABLE F 9

## TANNING, FELLMONGERING, AND WOOLSCOURING

*Particulars of Materials used and Products*

	1910-11		1921-22	
	Quantity.	Value (£).	Quantity.	Value (£)
Sheepskins operated on	4,440,392	683,170	2,696,105	321,135
Hides, pelts " "	2,835,289	398,173	803,660	295,721
Bark used, N. Zealand	626 tons	4,383	146	1,584
" imported	2,544 "	25,697	2,800	45,612
Pelts produced	1,155,488	105,305	704,555	63,140
Leather produced	4,762,803 lb.	326,471	4,622,081	520,712
Basils	236,825 "	14,285	296,186	56,688
Pickled pelts	2,944,360	204,394	1,697,929	156,082

TABLE F 10

## EXPORTS OF SOLE LEATHER

Total Exports : Included in F 19 for 1913, 271,290 lb. (£28,135) in 1922.  
 To Empire Countries : Included in F 19 for 1913, 267,067 lb. (£27,502) in 1922.  
 (*United Kingdom*) : Included in F 19 for 1913, 265,402 lb. (£27,111) in 1922.  
 To Foreign Countries : Included in F 19 for 1913, 4,223 lb. (£633) in 1922.  
 (*Society Islands*) : Included in F 19 for 1913, 4,223 lb. (£633) in 1922.

TABLE F 11

## EXPORTS OF LEATHER FOR BELTING

Total Exports : Included in F 19 for 1913, 878 lb. (£115) in 1922.  
 To Empire Countries : Included in F 19 for 1913, none in 1922.  
 To Foreign Countries : Included in F 19 for 1913, 878 lb. (£115) in 1922.

TABLE F 12

## EXPORTS OF TANNED CALFSKINS (WHOLE)

Total Exports : Included in F 19 for 1913, 961 lb. (£713) in 1922.  
 To Empire Countries : Included in F 19 for 1913, 413 lb. (£631) in 1922.  
 To Foreign Countries : Included in F 19 for 1913, 548 lb. (£82) in 1922.

TABLE F 13

## EXPORTS OF HIDE LEATHERS OTHER THAN EAST INDIA KIP (UNDRESSED)

Total Exports : Included in F 19 for 1913, 34,978 lb. (£2,353) in 1921.  
 To Empire Countries : Included in F 19 for 1913, 24,020 lb. (£1,514) in 1921.  
 (*United Kingdom*) : Included in F 19 for 1913, 23,057 lb. (£1,453) in 1921.  
 To Foreign Countries : Included in F 19 for 1913, 10,958 lb. (£839) in 1921.  
 (*United States*) : Included in F 19 for 1913, 10,958 lb. (£839) in 1921.

TABLE F 14

## EXPORTS OF TANNED GOAT- AND KIDSKINS

Total Exports : Included in F 19 for 1913, 6,021 lb. (£3,993) in 1922.  
 To Empire Countries : Included in F 19 for 1913, 5,760 lb. (£3,716) in 1922.  
 (*Australia*) : Included in F 19 for 1913, 5,760 lb. (£3,716) in 1922.  
 To Foreign Countries : Included in F 19 for 1913, 261 lb. (£277) in 1922.

TABLE F 15

## EXPORTS OF TANNED SHEEP- AND LAMBSKINS

Total Exports : Included in F 19 for 1913, 18,006 lb. (£1,391) in 1922.  
 To Empire Countries : Included in F 19 for 1913, 17,934 lb. (£1,349) in 1922.  
 (*United Kingdom*) : Included in F 19 for 1913, 17,907 lb. (£1,343) in 1922.  
 To Foreign Countries : Included in F 19 for 1913, 72 lb. (£42) in 1922.

TABLE F 16

## EXPORTS OF HIDE LEATHERS OTHER THAN EAST INDIA KIP (DRESSED)

Total Exports : Included in F 19 for 1913, 113,136 lb. (£11,904) in 1922.  
 To Empire Countries : Included in F 19 for 1913, 113,136 lb. (£11,904) in 1922.  
 (*United Kingdom*) : Included in F 19 for 1913, 113,136 lb. (£11,904) in 1922.  
 To Foreign Countries : Included in F 19 for 1913, none in 1922.

TABLE F 17

## EXPORTS OF JAPANNED AND ENAMELLED LEATHER

Total Exports : Included in F 19 for 1913, 34 lb. (£26) in 1922.  
 To Empire Countries : Included in F 19 for 1913, 34 lb. (£26) in 1922.  
 To Foreign Countries : Included in F 19 for 1913, none in 1922.

TABLE F 18

## EXPORTS OF CHAMOIS LEATHER

Total Exports : Included in F 19 for 1913, £6,251 in 1922.  
 To Empire Countries : Included in F 19 for 1913, £6,251 in 1922.  
 (*Australia*) : Included in F 19 for 1913, £5,918 in 1922.  
 To Foreign Countries : Included in F 19 for 1913, none in 1922.

TABLE F 19

## EXPORTS OF LEATHER

Total Exports : 4,497 cwt. (£33,257) in 1913, 410,326 lb. (£46,277) in 1922.  
 To Empire Countries : 4,473 cwt. (£32,941) in 1913, 404,344 lb. (£45,128) in 1922.  
 (*United Kingdom*) : 4,343 cwt. (£30,869) in 1913, 396,389 lb. (£40,324) in 1922.  
 (*Australia*) : 126 cwt. (£1,994) in 1913, 6,864 lb. (£4,564) in 1922.  
 To Foreign Countries : 24 cwt. (£316) in 1913, 5,982 lb. (£1,149) in 1922.

TABLE F 20

## EXPORTS OF LEATHER BELTING

Total Exports : 411 lb. (£51) in 1913, 860 lb. (£549) in 1922.  
 To Empire Countries : 403 lb. (£49) in 1913, 227 lb. (£106) in 1922.  
 To Foreign Countries : 8 lb. (£2) in 1913, 633 lb. (£443) in 1922.

TABLE F 21

## IMPORTS OF SKINS AND PELTS

Total Imports : 2,689 skins (£234) in 1913, 30,276 skins (£6,446) in 1922.  
 From Empire Countries : 1,891 skins (£129) in 1913, 27,317 skins (£3,927) in 1922.  
 (*Australia*) : 429 skins (£34) in 1913, 19,576 skins (£1,325) in 1922.  
 (*Africa*) : None in 1913, 3,959 skins (£2,036) in 1922.  
 From Foreign Countries : 798 skins (£105) in 1913, 2,959 skins (£2,519) in 1922.

TABLE F 22

## IMPORTS OF HIDES, PELTS, SKINS, NOT OTHERWISE SPECIFIED

Total Imports : Included in F 21 for 1913, 11,781 skins (£5,897) in 1922.  
 From Empire Countries : Included in F 21 for 1913, 8,822 skins (£3,378) in 1922.  
 (*United Kingdom*) : Included in F 21 for 1913, 2,463 skins (£458) in 1922.  
 (*Africa*) : Included in F 21 for 1913, 3,959 skins (£2,036) in 1922.  
 (*Australia*) : Included in F 21 for 1913, 1,081 skins (£776) in 1922.  
 From Foreign Countries : Included in F 21 for 1913, 2,959 skins (£2,519) in 1922.

TABLE F 23

## IMPORTS OF HIDES, CATTLE AND HORSE

Total Imports: 10,278 skins (£17,027) in 1913, 4,248 skins (£10,090) in 1922.  
 From Empire Countries: 8,156 skins (£12,114) in 1913, 2,325 skins (£4,330) in 1922.  
 (*United Kingdom*): 822 skins (£2,902) in 1913, 310 skins (£1,493) in 1922.  
 (*Australia*): 7,280 skins (£9,160) in 1913, 672 skins (£1,454) in 1922.  
 From Foreign Countries: 2,122 skins (£4,913) in 1913, 1,923 skins (£5,760) in 1922.  
 (*Italy*): 650 skins (£2,199) in 1913, 534 skins (£2,294) in 1922.  
 (*Society Islands*): 853 skins (£742) in 1913, 522 skins (£251) in 1922.  
 (*Portugal*): None in 1913, 647 skins (£2,626) in 1922.

TABLE F 24

## IMPORTS OF TANNING BARK

Total Imports: 3,118 tons (£31,017) in 1913, 1,623 tons (£21,860) in 1922.  
 From Empire Countries: 3,050 tons (£30,121) in 1913, 1,623 tons (£21,860) in 1921.  
 (*Australia*): 2,910 tons (£28,797) in 1913, 850 tons (£11,942) in 1922.  
 (*South Africa*): 127 tons (£1,106) in 1913, 758 tons (£9,680) in 1922.  
 From Foreign Countries: 68 tons (£896) in 1913, none in 1922.

TABLE F 25

## IMPORTS OF TANNING MATERIALS NOT OTHERWISE SPECIFIED

Total Imports: £6,559 in 1913, £25,136 in 1922.  
 From Empire Countries: £4,371 in 1913, £16,806 in 1922.  
 (*United Kingdom*): £658 in 1913, £10,767 in 1922.  
 (*Australia*): £3,058 in 1913, £3,681 in 1922.  
 (*India*): £645 in 1913, £985 in 1922.  
 (*South Africa*): None in 1913, £1,209 in 1922.  
 From Foreign Countries: £2,188 in 1913, £8,330 in 1922.  
 (*Belgium*): £79 in 1913, £2,881 in 1922.  
 (*United States*): £662 in 1913, £3,570 in 1922.  
 (*Argentina*): None in 1913, £624 in 1922.

TABLE F 26

IMPORTS OF SOLE, PUMP, AND SKIRT LEATHER<sup>1</sup>

Total Imports : Included in F 45 for 1913, 1,027,718 lb. (£142,776) in 1922.  
 From Empire Countries : Included in F 45 for 1913, 962,443 lb. (£132,919) in 1922.  
 (*United Kingdom*) : Included in F 45 for 1913, 694,099 lb. (£107,878) in 1922.  
 (*Canada*) : Included in F 45 for 1913, 53,450 lb. (£7,759) in 1922.  
 (*Australia*) : Included in F 45 for 1913, 214,746 lb. (£17,239) in 1922.  
 From Foreign Countries : Included in F 45 for 1913, 65,275 lb. (£9,857) in 1922.

<sup>1</sup> Probably almost entirely sole leather.

TABLE F 27

## IMPORTS OF BELT LEATHER, HARNESS, WELTING, STRAP, LEGGING, BAG, AND BRIDLE KIP (OTHER THAN EAST INDIA)

Total Imports : Included in F 45 for 1913, 42,061 lb. (£6,785) in 1922.  
 From Empire Countries : Included in F 45 for 1913, 41,343 lb. (£6,534) in 1922.  
 (*United Kingdom*) : Included in F 45 for 1913, 10,704 lb. (£2,397) in 1922.  
 (*Australia*) : Included in F 45 for 1913, 30,639 lb. (£4,137) in 1922.  
 From Foreign Countries : Included in F 45 for 1913, 718 lb. (£251) in 1922.

TABLE F 28

## IMPORTS OF TANNED CALFSKINS (WHOLE)

Total Imports : Included in F 45 for 1913, 60,146 lb. (£42,999) in 1922.  
 From Empire Countries : Included in F 45 for 1913, 49,046 lb. (£32,978) in 1922.  
 (*United Kingdom*) : Included in F 45 for 1913, 22,944 lb. (£12,633) in 1922.  
 (*Australia*) : Included in F 45 for 1913, 19,763 lb. (£15,801) in 1922.  
 From Foreign Countries : Included in F 45 for 1913, 11,100 lb. (£10,021) in 1922.  
 (*United States*) : Included in F 45 for 1913, 10,412 lb. (£9,769) in 1922.

TABLE F 29

## IMPORTS OF HIDE LEATHERS OTHER THAN EAST INDIA KIP (UNDRESSED)

Total Imports : Included in F 45 for 1913, 20,605 lb. (£1,320) in 1922.  
 From Empire Countries : Included in F 45 for 1913, 20,507 lb. (£1,191) in 1922.  
 (*United Kingdom*) : Included in F 45 for 1913, 3,060 lb. (£517) in 1922.  
 (*Australia*) : Included in F 45 for 1913, 17,447 lb. (£674) in 1922.  
 From Foreign Countries : Included in F 45 for 1913, 98 lb. (£129) in 1922.

TABLE F 30

## IMPORTS OF TANNED GOAT- AND KIDSKINS

Total Imports : Included in F 45 for 1913, 77,063 lb. (£63,740) in 1922.  
 From Empire Countries : Included in F 45 for 1913, 41,936 lb. (£35,448) in 1922.  
 (*United Kingdom*) : Included in F 45 for 1913, 37,109 lb. (£31,551) in 1922.  
 (*Australia*) : Included in F 45 for 1913, 4,698 lb. (£3,728) in 1922.  
 From Foreign Countries : Included in F 45 for 1913, 35,127 lb. (£28,292) in 1922.  
 (*France*) : Included in F 45 for 1913, 1,711 lb. (£2,158) in 1922.  
 (*United States*) : Included in F 45 for 1913, 33,416 lb. (£26,134) in 1922.

TABLE F 31

## IMPORTS OF TANNED SHEEP- AND LAMBSKINS

Total Imports : Included in F 45 for 1913, 30,355 lb. (£10,671) in 1922.  
 From Empire Countries : Included in F 45 for 1913, 29,290 lb. (£10,044) in 1922.  
 (*United Kingdom*) : Included in F 45 for 1913, 1,090 lb. (£421) in 1922.  
 (*Australia*) : Included in F 45 for 1913, 28,156 lb. (£9,569) in 1922.  
 From Foreign Countries : Included in F 45 for 1913, 1,065 lb. (£627) in 1922.  
 (*United States*) : Included in F 45 for 1913, 816 lb. (£508) in 1922.

TABLE F 32

## IMPORTS OF DRESSED EAST INDIA KIP

Total Imports : Included in F 45 for 1913, 9,760 lb. (£1,489) in 1922.  
 From Empire Countries : Included in F 45 for 1913, 9,736 lb. (£1,463) in 1922.  
 (*United Kingdom*) : Included in F 45 for 1913, 8,980 lb. (£1,369) in 1922.  
 From Foreign Countries : Included in F 45 for 1913, 24 lb. (£26) in 1922.

TABLE F 33

## IMPORTS OF HIDE LEATHER OTHER THAN EAST INDIA KIP (DRESSED)

Total Imports : Included in F 45 for 1913, 72,587 lb. (£18,593) in 1922.  
 From Empire Countries : Included in F 45 for 1913, 71,885 lb. (£18,137) in 1922.  
 (*United Kingdom*) : Included in F 45 for 1913, 36,950 lb. (£7,954) in 1922.  
 (*Australia*) : Included in F 45 for 1913, 27,992 lb. (£7,262) in 1922.  
 From Foreign Countries : Included in F 45 for 1913, 702 lb. (£456) in 1922.  
 (*United States*) : Included in F 45 for 1913, 505 lb. (£411) in 1922.

TABLE F 34

## IMPORTS OF JAPANNED AND ENAMELLED LEATHER

Total Imports : Included in F 45 for 1913, 54,158 lb. (£37,016) in 1922.  
 From Empire Countries : Included in F 45 for 1913, 34,665 lb. (£18,520) in 1922.  
 (*United Kingdom*) : Included in F 45 for 1913, 7,632 lb. (£3,576) in 1922.  
 (*Canada*) : Included in F 45 for 1913, 9,735 lb. (£7,052) in 1922.  
 (*Australia*) : Included in F 45 for 1913, 17,297 lb. (£6,642) in 1922.  
 From Foreign Countries : Included in F 45 for 1913, 19,494 lb. (£18,496) in 1922.  
 (*United States*) : Included in F 45 for 1913, 19,158 lb. (£18,375) in 1922.

TABLE F 35

## IMPORTS OF CHAMOIS LEATHER

Total Imports : Included in F 45 for 1913, £2,092 in 1922.  
 From Empire Countries : Included in F 45 for 1913, £1,782 in 1922.  
 (*United Kingdom*) : Included in F 45 for 1913, £1,730 in 1922.  
 From Foreign Countries : Included in F 45 for 1913, £360 in 1922.  
 (*United States*) : Included in F 45 for 1913, £355 in 1922.

TABLE F 36

## IMPORTS OF LEATHER NOT OTHERWISE SPECIFIED

Total Imports : Included in F 45 for 1913, 77,704 lb. (£12,431) in 1922.  
 From Empire Countries : Included in F 45 for 1913, 75,555 lb. (£10,490) in 1922.  
 (*United Kingdom*) : Included in F 45 for 1913, 14,732 lb. (£5,558) in 1922.  
 (*Australia*) : Included in F 45 for 1913, 58,829 lb. (£4,680) in 1922.  
 From Foreign Countries : Included in F 45 for 1913, 2,149 lb. (£1,941) in 1922.  
 (*United States*) : Included in F 45 for 1913, 2,148 lb. (£1,940) in 1922.

TABLE F 37

## BOOT AND SHOE MAKING

*Particulars of Materials used and Products*

	1910-11		1921-22	
	Quantity.	Value (£).	Quantity.	Value (£).
New Zealand leather used	2,267,060 lb.	140,298	2,173,850 lb.	216,865
" " "	1,331,274 ft.	50,038	2,138,716 ft.	151,378
Imported " "	135,298 lb.	14,113	366,379 lb.	48,671
" " "	1,771,193 ft.	72,741	1,279,851 ft.	140,149
Boots and shoes produced	1,324,477 pairs	571,640	1,329,158 pairs	1,232,687
Slippers " "	68,040 "	14,769	32,841 "	11,459
Shoettes . . .	98,644 "	11,538	29,296 "	7,429
Uppers (for sole) . .	17,464 "	6,925	—	—
Leggings . . .	2,279 "	777	—	—



## LEATHER, HIDES, AND SKINS

TABLE F 38

## IMPORTS OF BOOTS AND SHOES (SIZES 0 TO 6)

Total Imports : 23,326 doz. pairs (£24,111) in 1913, 35,352 doz. pairs (£84,544) in 1922.  
 From Empire Countries : 23,099 doz. pairs (£23,960) in 1913, 35,175 doz. pairs (£84,438) in 1922.  
 (*United Kingdom*) : 23,088 doz. pairs (£23,950) in 1913, 33,416 doz. pairs (£80,590) in 1922.  
 (*Australia*) : 9 doz. pairs (£8) in 1913, 1,240 doz. pairs (£2,938) in 1922.  
 From Foreign Countries : 227 doz. pairs (£151) in 1913, 78 doz. pairs (£106) in 1922.

TABLE F 39

## IMPORTS OF BOOTS AND SHOES NOT OTHERWISE SPECIFIED

Total Imports : 115,112 doz. pairs (£358,221) in 1913, 87,521 doz. pairs (£515,096) in 1922.  
 From Empire Countries : 110,729 doz. pairs (£345,773) in 1913, 84,411 doz. pairs (£477,070) in 1922.  
 (*United Kingdom*) : 107,111 doz. pairs (£339,963) in 1913, 71,498 doz. pairs (£433,501) in 1922.  
 (*Australia*) : 154 doz. pairs (£868) in 1913, 1,857 doz. pairs (£17,841) in 1922.  
 From Foreign Countries : 4,383 doz. pairs (£12,448) in 1913, 3,110 doz. pairs (£38,026) in 1922.

TABLE F 40

## IMPORTS OF SADDLERY AND HARNESS

Total Imports : Included in F 45 for 1913, £8,809 in 1922.  
 From Empire Countries : Included in F 45 for 1913, £8,809 in 1922.  
 (*United Kingdom*) : Included in F 45 for 1913, £8,809 in 1922.  
 From Foreign Countries : Included in F 45 for 1913, none in 1922.

TABLE F 41

## IMPORTS OF LEATHER BELTING

Total Imports : 28,959 lb. (£4,739) in 1913, 30,178 lb. (£10,932) in 1922.  
 From Empire Countries : 26,286 lb. (£4,059) in 1913, 25,432 lb. (£8,529) in 1922.  
 (*United Kingdom*) : 21,860 lb. (£3,287) in 1913, 11,440 lb. (£4,233) in 1922.  
 (*Australia*) : 4,382 lb. (£764) in 1913, 40 lb. (£9) in 1922.  
 (*Canada*) : 44 lb. (£8) in 1913, 13,952 lb. (£4,287) in 1922.  
 From Foreign Countries : 2,673 lb. (£680) in 1913, 4,746 lb. (£2,403) in 1922.  
 (*United States*) : 2,667 lb. (£678) in 1913, 4,742 lb. (£2,402) in 1922.

# NEW ZEALAND

275

TABLE F 42

## IMPORTS OF BELTING (OTHER THAN LEATHER)

Total Imports : £40,123 in 1913, £61,517 in 1922.  
 From Empire Countries : £36,640 in 1913, £51,985 in 1922.  
 (*United Kingdom*) : £35,006 in 1913, £38,772 in 1922.  
 (*Australia*) : £1,632 in 1913, £4,986 in 1922.  
 (*Canada*) : £2 in 1913, £8,227 in 1922.  
 From Foreign Countries : £3,483 in 1913, £9,532 in 1922.  
 (*United States*) : £3,090 in 1913, £9,363 in 1922.

TABLE F 43

## IMPORTS OF LEATHER BAGS UNDER 10 IN. LONG

Total Imports : Included in F 45 for 1913, £2,786 in 1922.  
 From Empire Countries : Included in F 45 for 1913, £2,758 in 1922.  
 (*United Kingdom*) : Included in F 45 for 1913, £1,448 in 1922.  
 (*Australia*) : Included in F 45 for 1913, £1,308 in 1922.  
 From Foreign Countries : Included in F 45 for 1913, £28 in 1922.

TABLE F 44

## IMPORTS OF PORTMANTEAUX, TRUNKS, AND CARPET BAGS

Total Imports : Included in F 45 for 1913, £4,988 in 1922.  
 From Empire Countries : Included in F 45 for 1913, £4,685 in 1922.  
 (*United Kingdom*) : Included in F 45 for 1913, £3,806 in 1922.  
 (*Australia*) : Included in F 45 for 1913, £795 in 1922.  
 From Foreign Countries : Included in F 45 for 1913, £303 in 1922.  
 (*United States*) : Included in F 45 for 1913, £203 in 1922.

TABLE F 45

## IMPORTS OF LEATHER AND LEATHER GOODS (NOT INCLUDING BOOTS AND SHOES)

Total Imports : 1,293,998 lb. (£206,387) in 1913, 1,394,782 lb. (£344,578) in 1922.  
 From Empire Countries : 1,168,776 lb. (£167,828) in 1913, 1,261,173 lb. (£275,769) in 1922.  
 (*United Kingdom*) : 806,281 lb. (£120,231) in 1913, 822,882 lb. (£184,631) in 1922.  
 (*Australia*) : 266,514 lb. (£39,728) in 1913, 361,494 lb. (£68,510) in 1922.  
 (*Canada*) : 95,981 lb. (£7,869) in 1913, 63,631 lb. (£15,230) in 1922.  
 From Foreign Countries : 125,222 lb. (£38,559) in 1913, 133,609 lb. (£68,809) in 1922.  
 (*Germany*) : 17,811 lb. (£8,738) in 1913, not known in 1922.  
 (*France*) : 15,547 lb. (£3,888) in 1913, 864 lb. (£2,706) in 1922.  
 (*United States*) : 81,958 lb. (£25,091) in 1913, 130,422 lb. (£66,018) in 1922.  
 (*Italy*) : 8,817 lb. (£366) in 1913, not known in 1922.

## APPENDIX

### CUSTOMS TARIFF (IMPORT DUTIES)

	British Preferential Tariff.	Intermediate Tariff.	General Tariff.
Hide leathers, kangaroo skins and wallaby skins, crust or rough-tanned, but undressed, not having been set out, oiled or rolled . . . . . ad. val.	5 <sup>0</sup> / <sub>10</sub>	7 <sup>1</sup> / <sub>2</sub> <sup>0</sup> / <sub>10</sub>	10 <sup>0</sup> / <sub>10</sub>
Leather, viz., goatskins and kidskins, however dressed, persians . . . . . ad. val.	Free	5 „	10 „
Hogskins . . . . . ad. val.	Free	5 „	10 „
Bookbinders' leather of qualities approved by the Minister, and under conditions prescribed by him . . . . . ad. val.	Free	5 „	10 „
Leather, japanned or enamelled, also such other leather specially suited for furniture and upholstery work, as may be approved by the Minister, and on conditions prescribed by him . . . . .	Free	Free	Free
Sole leather, being bends each weighing 14 lb. net or over . . . . . per lb.	3d.	4d.	5d.
Leather, n.e.i. belts, not being apparel and belting, wholly or partly composed of leather . . . . . ad. val.	15 <sup>0</sup> / <sub>10</sub>	20 <sup>0</sup> / <sub>10</sub>	25 <sup>0</sup> / <sub>10</sub>
or per lb.	3d.	4d.	5d.
(Whichever rate returns the higher duty.)			
Leather board, or compo, composed of skivings, split leather, leather scraps or the same mixed with other material, cemented and pressed together, cut into shapes or otherwise . . . . . per lb.	1s.	1s.	1s.
Leather laces, vamps and uppers, leather cut into shapes, clog and pattern soles, leather leggings . . . . . ad. val.	25 <sup>0</sup> / <sub>10</sub>	37 <sup>1</sup> / <sub>2</sub> <sup>0</sup> / <sub>10</sub>	45 <sup>0</sup> / <sub>10</sub>
Saddlery, harness, whips and whip-thongs . . . . . ad. val.	20 „	30 „	35 „
Leather manufactures, not being articles of apparel, n.e.i., chamois leather . . . . . ad. val.	20 „	30 „	35 „
Boots, shoes, shoettes, sandals, clogs and pattens, slippers and goloshes, viz., children's Nos. 0 to 6 . . . . . ad. val.	Free	10 „	20 „
Boots, shoes, shoettes, sandals, clogs and pattens, slippers and goloshes, viz. children's, Nos. 7 to 9 . . . . . ad. val.	Free	10 „	20 „
Boots, shoes, clogs, pattens, slippers, shoettes, sandals, goloshes, overshoes and other footwear, n.e.i. . . . . ad. val.	25 <sup>0</sup> / <sub>10</sub>	37 <sup>1</sup> / <sub>2</sub> „	45 „

CUSTOMS TARIFF (IMPORT DUTIES)—*continued*

	British Preferential Tariff.	Intermediate Tariff.	General Tariff.
Leather bags, leathercloth attache cases and the like receptacles, n.e.i. (not including basketware, wickerware, or similar receptacles) . . . . . ad. val.	20%	30%	35%
Portmanteaux, trunks, travelling bags, brief bags of leather or leathercloth, attache cases, suit cases and similar receptacles, 10 inches in length and upwards (not including basketware, wickerware, or similar receptacles) . . . . . ad. val.	25 „	35 „	40 „
Belts and belting for driving machinery, n.e.i., and not being cordage or rope, conveyor belts, and belting of rubber, textile, fibre, or combination of these materials . . . . . ad. val.	Free	10 „	20 „

NOTE.—A “primage” tax of 1 per cent *ad valorem* is also levied.

## BIBLIOGRAPHY

## TRADE PUBLICATIONS

- MEAT AND WOOL. “Meat and Wool,” Ltd., 22 Custom House Quay, Wellington.  
 THE PASTORAL REVIEW. “The Pastoral Review” Pty., Ltd., 120-38 King Street, Melbourne, Australia.

## OFFICIAL PUBLICATIONS

- STATISTICAL REPORT ON TRADE AND SHIPPING OF THE DOMINION OF NEW ZEALAND.  
 Published annually for calendar years.  
 MONTHLY ABSTRACT OF STATISTICS. Compiled in the Census and Statistics Office, Wellington.  
 STATISTICAL REPORT ON THE AGRICULTURAL AND PASTORAL PRODUCTION OF THE DOMINION OF NEW ZEALAND FOR THE AGRICULTURAL SEASON. Annually.  
 STATISTICAL REPORT ON THE INDUSTRIAL MANUFACTURES OF THE DOMINION OF NEW ZEALAND.  
 Published annually.  
 NEW ZEALAND OFFICIAL YEAR BOOK. Published annually.  
 MEMORANDUM AND TABLES AS TO THE TRADE STATISTICS AND TRADE OF THE SELF-GOVERNING DOMINIONS. Issued by the Dominion Royal Commission, 1916 (C.D. 8156).



SECTION G  
SOUTH AFRICA

## LIST OF TABLES IN SECTION G

TABLE NO.	PAGE
G 1. NUMBERS OF SHEEP, CATTLE AND GOATS IN THE UNION, 1921 .	301
G 2. WET OX- AND COW-HIDES, EXPORTS . . . . .	301
G 3. DRY OX- AND COW-HIDES, EXPORTS . . . . .	301
G 4. OX- AND COW-HIDES, TOTAL FIGURES, EXPORTS . . . . .	302
G 5. SHEEPSKINS, EXPORTS . . . . .	302
G 6. GOATSKINS, EXPORTS . . . . .	303
G 7. SEALSKINS, EXPORTS . . . . .	303
G 8. WATTLE BARK, EXPORTS . . . . .	303
G 9. WATTLE EXTRACT, EXPORTS . . . . .	304
G 10. WATTLE BARK, AREA UNDER CULTIVATION . . . . .	304
G 11. TANNERIES, NUMBERS OF, EMPLOYEES, WAGES, FIXED CAPITAL, ETC. . . . .	305
G 12. MATERIALS USED IN TANNERIES . . . . .	305
G 13. PRODUCTION OF TANNERIES . . . . .	306
G 14. PATENT AND ENAMELLED LEATHER, IMPORTS . . . . .	306
G 15. PIGSKIN LEATHER, IMPORTS . . . . .	307
G 16. OTHER KINDS OF LEATHER, IMPORTS . . . . .	307
G 17. BOOT FACTORIES, NUMBERS OF, EMPLOYEES, WAGES, FIXED CAPITAL, ETC. . . . .	307
G 18. MATERIALS USED IN BOOT FACTORIES . . . . .	308
G 19. PRODUCTION IN BOOT FACTORIES . . . . .	308
G 20. CHILDREN'S BOOTS, IMPORTS . . . . .	309
G 21. WOMEN'S BOOTS, IMPORTS . . . . .	309
G 22. MEN'S BOOTS, IMPORTS . . . . .	309
G 23. SLIPPERS, IMPORTS . . . . .	310
G 24. BOOTS AND SHOES, TOTAL IMPORTS . . . . .	310
G 25. HARNESS AND SADDLERY AND LEATHER GOODS INDUSTRY, NUMBERS OF, EMPLOYEES, WAGES, FIXED CAPITAL, ETC. . . . .	310
G 26. MATERIALS USED IN HARNESS AND SADDLERY AND LEATHER GOODS INDUSTRY . . . . .	311
G 27. PRODUCTION IN HARNESS AND SADDLERY AND LEATHER GOODS INDUSTRY . . . . .	311
G 28. SADDLERY AND HARNESS, IMPORTS . . . . .	311
G 29. BAGS AND TRUNKS, IMPORTS . . . . .	312
G 30. LEATHER BELTING, IMPORTS . . . . .	312
G 31. LEATHER MANUFACTURES, NOT OTHERWISE SPECIFIED . . . . .	312
G 32. GREASES USED IN TANNING AND FINISHING LEATHER . . . . .	312

## SECTION G

### SOUTH AFRICA

THE contribution of the Union of South Africa to the leather industry touches all the materials used in the production of leather, viz. hides, sheepskins, goatskins, and tanning materials. In each of these items she is a large exporter. At the present time she exports very little leather, but her tanneries are developing and may conceivably follow a course similar to that of the Australian tanneries which have been large exporters. Her policy is by means of protective tariffs to develop the tanning industry and also the industries manufacturing leather goods, and in view of the fact that she is abundantly provided with the raw materials it is likely that the industry will thrive in future.

#### HIDES

The total number of cattle in the Union at the last pre-War census (1911) and the latest post-War one (30th April, 1921) was :—

1911 . . . . .	5,800,000
1921 . . . . .	8,560,000

Details of the cattle enumerated in 1921 are shown in Table G 1, and the increase between 1911 and 1921 was nearly 50 per cent. Figures have been published of recent years to show the number of hides produced, but it is clear that these figures are deficient. (The number returned for the fiscal year 1920-21 was less than the number exported.)

Particulars have been available each year since 1917 of the weight and value of the hides used in the tanneries in the Union (see Table G 12), while Tables G 2, 3, and 4 give details of the hides exported. As figures of the consumption of hides before the War are not available, and the data of the War and post-War periods afford little clue to these, it is not possible to make a comparison of the pre-War with the post-War position as regards hide consumption. Moreover, owing to the fact that the foreign trade figures are for the calendar year, while those obtained from the production census are for the year ending June 30th, the combination of these does not lead to results which are strictly accurate. Making the nearest comparison possible, however, and taking the domestic consumption for the year ending June 30th, 1921, with the exports for the year 1921, the figures are :—

	lb.(000)	£
Domestic consumption . . . . .	9,700	418,000
Exports, wet-salted . . . . .	9,230	214,000
„ dry and dry-salted . . . . .	5,070	148,000
Total . . . . .		780,000



The total number of hides represented by the exports was 388,000. The number represented in the domestic consumption (calfskins are included in the figures) was probably in the neighbourhood of 400,000 or more. The total supply in the period of depression referred to accordingly was probably about 800,000. The total export in 1922, however (see Table G 4), was 614,000, which would indicate a supply probably over 1,000,000. This figure is supported by the fact that the numbers exported (see Table G 4) in 1912 and 1913 (when the number tanned was certainly less than in 1921-22) were 820,000 and 880,000 respectively. We are probably not far from the truth accordingly in taking the number of hides in 1913 and 1921-22 as about 1,000,000, of value about £1,000,000 in 1913 and of value £900,000 in 1921-22. This number of hides seems small in comparison with the number of cattle, but if the export and production figures are correct it cannot be very far from the truth. The cattle in South Africa, however, suffer from an extremely heavy natural mortality; particulars are collected of the number dying from various diseases, and for the year ending 30th April, 1921, the total was 440,000, classified as follows:—

Anthrax . . . . .	9,924
East Coast fever . . . . .	7,417
Lamziekte . . . . .	44,607
Other diseases . . . . .	159,739
Drought . . . . .	77,577
In Union native locations and reserves . . . . .	140,927

Even these figures are likely to underestimate the true mortality, which may accordingly probably be as high as 500,000 cattle per annum.

In the Foreign Trade Returns for 1913 no distinction was made between wet-salted and dry and dry-salted hides, but in the figures for the post-War years this distinction was made. In 1913, 90 per cent of the hides exported from South Africa came to the United Kingdom. Only 60 per cent in 1921 and 40 per cent in 1922 of the wet hides exported came to this country, Germany in the former year and France in the latter each taking 25 per cent. Of the dry and dry-salted hides exported in 1921 65 per cent, and in 1922 78 per cent, came to the United Kingdom, Germany taking most of the remainder.

By far the best means of describing the problems associated with the trade in South African hides is to quote *in extenso* from the report by Mr. W. N. Hutchings written in 1922. Mr. Hutchings, a tanner of Warrington, was President of the Chamber of Commerce of that town in the year in which it received one of the Research Fellowships instituted by the Management Committee of the British Empire Exhibition for the purpose of enquiring into various aspects of inter-Imperial trade. In view of the importance of South Africa as a supplier of the raw materials required in the tanning industry, Mr. Hutchings selected that country as a field for his enquiries, and the following extracts from his report describe the problems particularly associated with the hide trade there:—

“ In heavy hides the loss from bad flay and wasteful branding is estimated

at considerably over 10s. per hide. The loss on lighter hides is less easy to estimate, but it is probably an underestimate to put the loss of one hide with another at 6s. 8d. per hide, or, say, £400,000 on 1,200,000 hides. This loss is almost wholly preventable. To the tanning trade it means that in place of 1½ millions of good quality hides, there is that quantity of hides more or less damaged. They cost as much for freight, and as much in every item of tanning as sound hides, and produce a leather which is not wanted, and, further, which cannot be sold without loss at a price proportionate to its demerits, because of the cost to produce it.

"The bulk of the hides exported from South Africa are dry and dry-salted, chiefly the latter. The wet-salted hides are almost entirely from a few large towns—Cape Town, Durban, Maritzburg, Johannesburg, and the towns in the neighbourhood of Pretoria.

"Johannesburg and neighbourhood supply by far the most important part. It is in the wet-salted that the loss is easiest to appraise, and the cure is the most possible to apply. If compared with hides from the River Plate, South America, the South African hides are somewhat less stout than the Saladero hides; a proportion have a yoke mark on the neck, and a proportion will have thorn scratched grain and whip marks. On the other hand, they are free from tick, and are in general better trimmed, which characteristics fairly balance one another. The great difference is the bad flay of the South Africans. The difference in price is rarely less than 2d., on any values ruling for some years past, or 10s. on a 60-lb. hide. There is no reason for anything like such a difference, except careless handling.

"In Cape Town, Durban, Johannesburg, etc., all cattle must be killed at the municipal abattoirs, but they are killed by men employed by the butchers, so that the municipality does not control the flaying. The hides from different butchers vary greatly in flay. Some of the big firms have improved the standard, and in the case of one or two marks, get a better than average price on the market—about ½d. per lb., but this is only a beginning. The average price can yet be greatly raised by a higher standard. The great defect seems to be mixing hastily and defectively flayed hides with better stuff. The Government of the Union, which is most eager to improve the standard of all South African products, has, within the last few weeks, passed an Act to enable it to inspect and grade hides at the abattoirs, and it is proposed to establish a high standard of flay. This should have far-reaching consequences for good if efficiently administered. It is to be hoped that no classification will be such as to prejudice the Overseas trade. In South Africa, which is a country in process of development, the Government exercises more direct control in the conditions of industry than at home.

"I took with me photographs of leather made from South African hides and taken in our own yard, to illustrate the damage caused by bad flaying and by branding. One showed a bend made from an abattoir-flayed hide, on which were pencilled the patterns of forty-six through soles, as a manufacturer would cut the leather up. Of the forty-six only six were undamaged by cuts, and most were very badly damaged. Another photo showed the same bend alongside

one which was perfectly flayed. This was reproduced by the Department of Agriculture in their *Journal of Agriculture* for June, in which also was published a very interesting article on the subject, and another on brands. The damage from this source (brands) was illustrated by a third photo, this one showing also the traces of many whip marks on the grain of the hide. I found these photos invaluable, and they aroused much interest from Government officials to slaughtermen. I have left copies in a good many quarters where it seemed they might be useful, and continue to do good work.

#### DRY AND DRY-SALTED HIDES

"Dry and dry-salted hides, as already stated, constitute the bulk of the exported hides. They comprise all the hides excepting those killed in the largest towns, and vary greatly in value in accordance with the care taken in flaying and in curing. They are collected from all over the Union and from South-West Territory and Rhodesia, and shipped principally from Port Elizabeth and East London, Durban also supplying a quota. In immense areas the hides will be collected in ones and twos by the local storkeeper. They are taken off by men who do not get enough practice to learn how to do it well, and who do not see any reason for special care, as they get as much for one hide as another, good, bad, or indifferent. This seems to apply to the native and other districts alike, some of the native districts sending quite good stuff. The manner of flaying is different on these country hides from that of the city abattoirs—they are taken off often with an unsuitable knife, probably the knife the man always carries, and are, in bad cases, cut all over with short deep cuts, 3 to 5 inches long. Sometimes the number of cuts is so great that one would hardly credit it without seeing. The local storekeeper will, in turn, sell them to dealers, or send them to be auctioned in Port Elizabeth, or collect them for the big merchant house by whom he is probably financed. There does not seem to be any attempt to impress on him, any more than on the farmer, the value of good stuff, and until this is very clear to him he cannot be expected to trouble much, for he is far too busy and the hide is not very important to him. The impetus must come from the buyers, merchants, or dealers instructing their agents, and paying for good quality. Then, helped by Government and other propaganda, the idea may spread, even in the deep country. The smaller towns are more readily influenced, but generally there does not seem much reason to look for any widespread early improvement.

"The standard of sorting hides at the coast for flay is quite bad and tends to perpetuate the fault. Any hide without a hole cut right through it in the body of the hide is classed as No. 1 as to flay, though it might be cut half-way through the hide in a hundred places. If this standard could be altered at the Port Elizabeth auctions the result would probably be far-reaching, as it would bring into action the incentive of higher pay for good flaying. In fact it is probable that this is a necessary initial step.

"Hides are sprinkled with arsenic solution, somewhat crudely, when they come to the big warehouses, and the standard of selection on the grain is quite

a satisfactory one. An improvement in detail would be the use of a sprayer such as is used for whitewashing or for fruit trees, as ensuring even application of the solution.

#### ANTHRAX

" This disease is widely spread, and in some parts of the country is very serious. In the four provinces, Cape, Natal, Orange Free State and Transvaal, in June 1920-21, 1,381 outbreaks were recorded resulting in 5,752 deaths. The Orange Free State and Transvaal are the worst. In the native Transkei territories 493 outbreaks were reported. A vaccine has been found to give immunity from this, and in the four provinces named 280,794 inoculations were made in this year, and in the Transkeian territories 212,730 in the same time, the natives in this district being very ready to take advantage of the inoculation. Since the first inoculations an improved vaccine has been found. The Government has been most successful in eradicating tick, and minimising East Coast fever, and will, no doubt, have equal success in time with anthrax. It has to fight much inertia, dislike of notification and of precautions, amongst a section of the community. The immunity is for a year.

#### TRIM

" Most of the hides are trimmed at the abattoirs with short shanks and trimmed cheeks. Some, however, are sold with all on the shanks and on the heads. Some butchers again will sell the hide with either trim at relative prices. I am told that there is a difference of 10 lb. per hide between the two trims, and, further, there is a difference in the classing of hides as heavy or light, a light hide getting often classed as heavy if untrimmed. Buyers will be well-advised to insist and to pay adequately for the close trim.

#### BRANDING

" The practice of branding on the rump is another source of preventable loss. In the Transvaal it is obligatory to brand first on the near rump, and subsequently below this so long as there is space ; then the same on the off side, then on near shoulder, off shoulder, near ribs, off ribs. The poor beast who endured the fulfilment of all this law must have had a poor time, and he was probably only theoretic. In other parts of the Union no special place is stipulated. In South Rhodesia the brand must be on the rump. This is only necessary where the cattle are running over big areas and are harried on horse-back, a condition not applying in the great bulk of the country. It has been pointed out by the United Tanners Federation to the South African Trade Commissioner that the placing a brand on the " bend " was, at the time, depreciating the value by about 6s. per hide, besides disqualifying it for such trades as motor car covers and belting. I have brought this before many men, ranch managers, directors, and others. In the bigger ranches it will

probably be altered, but in smaller ones there is the thought—we shall get no more for the beast at auction, why bother? The tanners' suggestion is for the brand to be on the cheek, fore shank, hind shank, or (lastly) neck.

#### GOREMARKS

"Many hides are badly damaged in this way. It occurs chiefly amongst beasts which are sent long distances by rail, both in putting them on and off the trains, when they get frightened and wild, and during the journey. The remedy is to dehorn the calves, and this is being largely done on some ranches, not primarily for the sake of the hides, but because the damage to the condition of the beast is serious. This again is a question of ranch conditions. In districts where cattle are not kraaled, and where wild beasts are numerous, it cannot be done, but these are in a minority.

"A very great enemy to improvement in both brands and gores is the pretty widespread feeling that however much trouble is taken to better the hide the farmer gets no more for his cattle. The system of marketing seems to be to blame for this. At present it is the man who buys the hides from the butcher who can do good by paying more for well-flayed and sensibly branded hides. If, however, big ranches would establish a reputation for hides clear of butt and body brands and gore marks, they would command some shillings a beast more for the cattle.

"The possible future supply of hides from South Africa is very great. The sources have been broadened by the opening up of the South-West territory (German South-West Africa), and by the development of ranching there and in Swaziland and Rhodesia.

"The great problem in South Africa is want of water. This is being met in some parts by irrigation dams, and in others by pumping. There is water in most parts under the ground, and as this can be utilized, the land will carry greatly increased quantities of cattle and of crops. The enormous farms will be subdivided, and a very much larger population will be able to live on it.

"At present the controlling factor in the hide supply seems to be the establishing of an overseas market for beef. The South African beef has not hitherto taken the English market in competition with Argentine beef, but a good continental trade is done, and the progressive ranches are constantly improving their grade of cattle. The Government statistics of beef exports, beginning in 1909 with 29,589 lb., showed in 1920 13,609,039, and this was considerably less than the previous year. The farming industry has been going through a bad time, and cattle have only been saleable at slaughter prices, a fact which may be expected to tell on the supply.

"A very big attempt is being made to organise co-operative selling for the cattle breeders, under the name of the Meat Producers' Association. The management are very keen on the improvement of the cattle and of the hides, both as to flay and brands."

## SHEEPSKINS

Practically all the sheepskins produced are exported in the woolled state. The numbers used in the local tan-yards between 1916 and 1921 varied from 58,000 to 130,000 per annum, but the number exported was 7,400,000 in 1913, 4,750,000 in 1921, and 7,700,000 in 1922. The facts of the supply can be summarised as follows :—

	No. of skins.	Value £.
1913 . . . . .	7,500,000	900,000
1921 . . . . .	4,900,000	720,000
1922 . . . . .	7,800,000	1,250,000

Details of the exports—by weight and value—are given in Table G 5. Before the War 96 per cent of the exports from South Africa came to the United Kingdom. Since the War, however, a considerable direct trade with France, and to a smaller extent the United States, has developed, the former country taking between 30 and 40 per cent. These skins were in considerable demand in this country during the War. Being mainly of the merinó type they cannot be used for many of the purposes for which finer skins are required, for example, roller leather, but for leather for jerkins and a variety of forms of clothing they provided certain essential supplies for the Army.

The number of sheep in the Union in 1913 and in 1921 were 30,660,000 and 31,739,000 respectively. Details of the different varieties in 1921 are shown in Table G 1. As in the case of cattle in South Africa, there is a very heavy mortality from disease among sheep, the total number of deaths reported occurring in the twelve months ending 30th April, 1921, being 2,164,000 sheep and 1,434,000 lambs, a total of 3,600,000 animals.

## GOATSKINS

Practically all the goatskins available also are exported. The number used in the local tanneries in 1921–22 was about 40,000 skins, but the exports in 1913, 1921 and 1922 were 3,160,000, 1,280,000 and 2,160,000 respectively. The facts of the supplies can be summarised as follows :—

	No. of skins.	Value £.
1913 . . . . .	4,000,000	330,000
1921 . . . . .	1,300,000	140,000
1922 . . . . .	2,200,000	220,000

Details of the exports—by weight and value—are given in Table G 6. In 1913 99 per cent of the exports were shipped to the United Kingdom, but only 46 per cent were retained here. In 1921 and 1922 substantial direct shipments were made to the United States, Germany and France, but about 70 per cent were shipped to the United Kingdom. The number of goats in the Union in 1913 was 11,760,000, but in 1921 there were only 7,840,000 returned, indicating a decrease of no less than 34 per cent, and this is fully reflected in the decline in the exports of skins. The mortality from disease of goats and kids is also heavy, the numbers of deaths from disease in the twelve months ending 30th April, 1921, being 480,000 goats and 270,000 kids.

## WATTLE BARK

The most interesting feature of South Africa in connection with the leather trade is associated with the development of the wattle bark industry. The use of wattle bark for tanning in Australia is almost as old as the tanning industry in that country, and the black wattle tree from which the bark is obtained is indigenous to that country. The tree, owing to its rapid growth, was introduced into South Africa for ornamental purposes and for wind screens, the timber being available for fencing, fuel and pit props. The bark from the African tree was first used for tanning in 1884, but the first serious growing as a commercial venture was in the New Hanover district, on the farm of Mr. F. T. Angus, about 1887. The first planting was only on a limited scale, but was added to year by year as evidence became available as to the advantages of the bark of the wattle as a tanning agent. The industry has progressed steadily ever since, and to-day there are some 200,000 acres under cultivation, of varying ages of one to twelve years' growth. Unfortunately, a proportion of such acreage has been planted on unsuitable ground, and the yield will be below the normal, which is from  $3\frac{1}{2}$  to  $4\frac{1}{2}$  tons per acre of dry bark. A certain portion of the area, owing to lack of the attention which is essential in the earlier life of the trees, is more or less worthless.

The growth of the industry can best be illustrated by the following figures of exports of bark and bark extract. (In recent years about 5,000 to 6,000 tons have been used in local tan-yards.)

EXPORTS OF WATTLE BARK AND WATTLE EXTRACT FROM SOUTH AFRICA,  
WITH CORRESPONDING QUANTITIES OF BARK INVOLVED  
(TAKING  $2\frac{1}{2}$  TONS BARK TO 1 TON EXTRACT)

Year.	Bark Exported. Tons.	Extract Exported. Tons.	Total Quantity of Bark Involved. Tons.	Average over Periods.
1899 . . .	11,100	—	11,100	12,300
1900 . . .	8,900	—	8,900	
1901 . . .	13,800	—	13,800	
1902 . . .	15,500	—	15,500	
1903 . . .	12,100	—	12,100	15,100
1904 . . .	15,800	—	15,800	
1905 . . .	17,500	—	17,500	
1906 . . .	15,000	—	15,000	
1907 . . .	24,400	—	24,400	31,600
1908 . . .	24,900	—	24,900	
1909 . . .	35,800	—	35,800	
1910 . . .	41,400	—	41,400	
1911 . . .	49,700	—	49,700	56,400
1912 . . .	52,800	—	52,800	
1913 . . .	65,000	—	65,000	
1914 . . .	58,200	—	58,200	

# SOUTH AFRICA

289

## EXPORTS OF WATTLE BARK—continued.

Year.	Bark Exported. Tons.	Extract Exported. Tons.	Total Quantity of Bark Involved. Tons.	Average over Periods.
1915 . . . .	39,900	—	39,900	48,500
1916 . . . .	50,800	400	51,800	
1917 . . . .	41,700	1,200	44,700	
1918 . . . .	48,200	3,700	57,500	
1919 . . . .	56,600	6,100	71,800	98,500
1920 . . . .	69,600	8,500	90,400	
1921 . . . .	71,400	4,900	83,600	
1922 . . . .	121,000	10,900	148,300	
1923 . . . .	104,200	15,600	143,200	

Comparing the post-War position with the immediately pre-War situation, the amount of bark involved in the exports (bark and extract together) increased from 56,400 per annum to 98,500 tons per annum, an increase of about 42,000 tons per year.

Tables G 8 and 9 show the figures of exports of bark and extract respectively for the years 1913 and 1922. The tables indicate that the bulk of the shipments were made to the United Kingdom and Germany, with substantial quantities also to Australia, Japan, United States, France, Belgium, and Holland. These tables, however, do not adequately represent the importance of the various countries as consumers of wattle bark or extract. In 1913, for example, a large proportion of the amount shipped to the United Kingdom was re-exported, while much of that shipped to Belgium (Antwerp) and Holland (Rotterdam) went to Germany's tan-yards. The actual consumption of bark and extract in the United Kingdom is estimated to have developed as follows :—

## QUANTITIES OF WATTLE BARK AND WATTLE EXTRACT FROM SOUTH AFRICA RETAINED IN THE UNITED KINGDOM

Year.	Bark. Tons.	Extract. Tons.	Total Quantity of Bark Involved. Tons.
1911 . . . .	8,400	—	8,400
1912 . . . .	8,700	—	8,700
1913 . . . .	10,700	—	10,700
1914 . . . .	12,300	—	12,300
1915 . . . .	22,400	—	22,400
1916 . . . .	17,400	400	18,400
1917 . . . .	16,700	1,200	19,700
1918 . . . .	35,000	3,700	44,200
1919 . . . .	16,300	6,100	31,500
1920 . . . .	28,000	8,500	49,200
1921 . . . .	12,000	3,200	20,000
1922 . . . .	25,000	5,800	39,500
1923 . . . .	30,000	10,000	55,000



## LEATHER, HIDES, AND SKINS

The consumption in other countries is estimated as follows :—

APPROXIMATE QUANTITIES OF WATTLE BARK CONSUMED (AS BARK OR EXTRACT) BY CERTAIN COUNTRIES

Year.	Germany and neighbouring countries.	United States.	Japan.	Australia.	India.
1910 . .	28,100	—	—	300	—
1911 . .	34,200	—	—	1,400	—
1912 . .	33,900	—	—	4,200	—
1913 . .	36,800	100	—	4,000	—
1914 . .	40,300	100	—	3,200	—
1915 . .	—	1,400	—	7,500	700
1916 . .	—	11,400	800	5,200	1,500
1917 . .	—	2,800	1,700	8,100	4,500
1918 . .	—	2,200	5,100	3,800	1,100
1919 . .	3,000	18,100	5,300	6,200	2,900
1920 . .	7,000	18,200	5,000	2,800	1,300
1921 . .	40,000	7,500	11,000	2,800	1,200
1922 . .	82,000	8,900	7,400	3,500	500

The most suitable ground for the cultivation of wattles is in what is called the Midlands belt of Natal, which extends from the Umvoti country on the borders of Zululand, through Greytown, Sevenoaks, New Hanover, Ashenden, Maritzburg, and some 20 or 30 miles north of the latter—a total distance of 75–100 miles, and anything from 15–20 miles in breadth, or even more. The most suitable of this area is without doubt the Umvoti country, which includes Sevenoaks and Maritzburg, and includes also the area within a radius of ten or twelve miles of the town of Maritzburg, most of which area gets the advantage as far as growth is concerned of the mists, but has the disadvantage of making it somewhat difficult to cure the bark without damage during the summer months.

There is also very suitable ground in Zululand, but the distances of such ground from railway communication add considerably to the price delivered at the port of shipment, which is Durban.

There is a fair quantity of wattle ground in the Richmond, Ixipo, Harding and Port Shepstone districts, but the ground in such districts is not altogether suitable, although fair results have been obtained. Also, there is a certain amount of wattles grown in the northern districts of Natal and in the Transvaal, but the plantations in such districts have not been very successful.

A very considerable further acreage could be put under cultivation if sufficient encouragement were forthcoming to the grower.

The growing of wattle trees is somewhat precarious in that a considerable period must elapse before the bark is matured. In some districts where the growth is unusually rapid, this may be between seven and eight years, but in most cases it has been found economically desirable not to start felling and

stripping operations under ten to twelve years. In the meantime, and especially in the earlier stages of the growth, a considerable amount of labour is involved in keeping the plantations clean, which means a very considerable outlay and tying up of capital, and there is no certainty that at the end of the period the price of bark will be such as to give an adequate return. In addition to this, there is the ever-increasing danger of disease, such as bag-worm, frog hopper, and caterpillar, which have the most serious effect on the growth of the trees. There is also the constant danger of fires in the plantations, which is very real during the dry winter months.

The usual procedure of planting is to put in a certain acreage one year, following with a similar acreage the next year, and so on, until a rotation extending from one to ten years is established. When the oldest plantation is cut down, the bark having been stripped and all the timber of value having been removed, the branches are laid out in straight lines on the area so felled and allowed to lie until thoroughly dry, and then burnt. The seed which has fallen during the growth of the trees is thus germinated and a new growth begins, which after a few months is thinned out, and thinned again until the basis of a new plantation is established, and thus rotation begins over again. The term used for this procedure is "re-establishing."

Particulars of the area of land planted with wattle in the different provinces are given in Table G 10. This table shows a total area of about 200,000 acres, which, if all the trees were suitable for stripping, would indicate a supply of about 800,000 tons of bark. The figures, however, do not distinguish between plantations which have been properly thinned and cultivated and those which have not been properly attended to, and in the opinion of those well qualified to express an opinion the effective area available is very much below the figures stated, and it is probable, accordingly, that the actual "visible supply" of bark is much below the figure here stated.

A number of factories for the making of extract from wattle bark have been established in South Africa. Two are just outside Durban and two others in Maritzburg. There is also one at Mersey, one in the Sevenoaks district, and one in the New Hanover district, all being in the heart of the wattle-growing area. When obtainable, these factories use the bark green, but this is only possible during certain months of the year, as for some two or three months in the winter it is impossible to strip the bark from the trees, and the factories therefore have to provide themselves with the necessary dry bark to continue their operations.

Mr. Hutchings, in the report previously mentioned, referred to the manufacture of wattle extract as follows :—

"The manufacture of wattle bark into solid extract received a great impetus during the War, owing to the scarcity of freight room. The extract contains about 65 per cent of tan, 15 to 16 per cent of water, and takes barely half the cubic space per unit of tan that pressed bark does. I was shown over three extract factories: the efficiency of the control, both chemical and mechanical, is very noteworthy. No chemicals or

other bleaching process is employed in these, and the reds in colour tests run in some cases as low as 3·8. This, with a tanning strength of 65 per cent, is not high.

"There is no doubt that there is less waste in extracting in this way than by any old-fashioned method in use in tanneries. To what extent this may be balanced by any economy in extracting to the exact strength required for use is for the individual tanner to decide. The factories prefer to extract the newly shipped or "green" bark. It is much nicer to handle, gives no dust, and is cheaper than dried bark. A question for trade chemists is whether there is any, and, if so, what, difference between extract made from dry or green bark in tanning effect. I found a rather unexpected lack of confidence in the future of the industry in some quarters; prices, it is said, have fluctuated very greatly and very rapidly, and men want to be sure of the future demand. Speaking from my own limited knowledge, I expressed myself as confident of a continued and increased permanent demand, so long as it can be supplied at reasonable prices. As to the fluctuations, wattle would not seem to have suffered more than most other commodities in the troublous times, and less than some. A doubt was also expressed as to the competition of synthetic tans. Again, subject to the same qualification, it seems that synthetic tans have to go some way, both in improving quality and reducing prices, before they will be serious rivals to wattle bark."

A good deal of useful information on the wattle industry in its many aspects will be found in a Bulletin by Mr. Williams reprinted from the *South African Journal of Industries* in 1918, and special reference may be made to this among the other papers detailed in the bibliography to this Section.

The general statistical position of South Africa in connection with hides and skins and tanning materials may be summarised as follows :—

	Hides and Skins.		Tanning Materials.		Total.	
	1921	1922	1921	1922	1921	1922
	£(000)		£(000)		£(000)	
Production . . .	1,660	2,260	600	1,040	2,260	3,300
Imports . . . . .	small	small	50	30	50	30
Exports . . . . .	1,220	1,950	570	1,000	1,790	2,950
Consumption . . .	440	310	80	70	520	380

#### LEATHER PRODUCTION

The statistics which have been obtained since 1916 enable the development of the leather industry to be indicated in considerable detail, and in this respect South Africa is ahead of any of the Dominions and of the Mother Country. Table G 11 gives many general particulars of tanneries. The number working increased from 19 in 1915-16 to 31 in 1920-21, which number was reduced to 27 in 1921-22. Most of these tanneries are situated in Cape Colony, and

six employ more than 100 workpeople. The total number of employees in 1921-22 was 1,335, receiving £128,000 in wages, while the value of the fixed capital was nearly £300,000. In 1915-16 and in 1916-17, when the value of the fixed capital was returned as £120,000 and £134,000 respectively, the total capital invested was returned at £365,000 and £458,000. Prices in the earlier of the periods mentioned had not risen much above pre-War, and it would appear from these figures that one-third, or rather less, of the capital employed in a South African tan-yard is locked up in fixed assets.

The total value of the materials used in 1915-16 and in 1921-22 were £340,000 and £430,000 respectively, the value of the corresponding product being £480,000 and £687,000. At the earlier date the proportion of materials used to output was 70 per cent, but for the later date it was 65 per cent. These proportions are below those holding in the other countries for which information was available.

The statistics collected since 1916 of the materials used in South African tanneries (see Table G 12) enable a very comprehensive view of the industry to be obtained. Approximately 90 per cent of the materials used are of local origin, though this proportion shows a tendency to diminish, being 92 per cent in 1916-17 and falling steadily to 85 per cent in 1921-22. The total value of the materials used in 1921-22 was £430,000, made up as follows:—

	£
Hides and calfskins . . . . .	294,000
Sheepskins . . . . .	10,000
Goatskins . . . . .	6,000
Other skins . . . . .	4,000
Vegetable tanning materials . . . . .	57,000
Mineral „ . . . . .	14,000
Materials for liming . . . . .	6,000
Oils and fats . . . . .	18,000
Dyeing materials . . . . .	6,000
Other „ . . . . .	15,000

Hides and skins account for 73 per cent of the total, tanning materials for 17 per cent, oils and fats for 4 per cent, and the remaining materials for 6 per cent.

Particulars of output of leather are available in equal detail, and are shown in Table G 13.

The total output value in 1921-22 was £687,000. The proportion of chrome leather is quite substantial. The proportion for 1921-22 is not known, but in the previous year it was over 18 per cent, and of this 45 per cent was chrome-tanned sole leather, the output of this being about 200 tons. This last figure was about 10 per cent of the total output of sole leather, which in 1921-22 was about 2,000 tons. By value, however, the proportion of chrome-tanned sole leather was nearly 15 per cent of the total of £410,000 for sole leather. The weight of dressing leather produced was about 280 tons, of value £72,000.

Table G 13 shows that the production of chrome-tanned upper leather has made considerable headway in comparison with vegetable-tanned upper leather. By weight, since 1916-17, the former has more than doubled, but the latter has fallen by nearly 40 per cent; in terms of value the change is even more marked.

Details of leather imports into South Africa are rather meagre, being classified only into (a) enamelled leather (of value in 1922, £10,000—see Table C 14); (b) pigskin leather (of value in 1922, £1,400), practically all from the United Kingdom; and (c) other kinds of leather (of value in 1922, £159,000—see Table G 16). The last-named class is the only one which need be referred to; £103,000 of the £159,000 came from the United Kingdom, and £39,000 from Australia, these two countries between them providing nearly 90 per cent of the imports.

In 1913 Australia's share in the imports into South Africa was nearly equal to that of the United Kingdom, but the former country has in the interval fallen away to a much greater extent than has the latter.

The export of leather from South Africa is, in proportion to the imports and production, inappreciable, the value in 1922 being less than £4,000.

Making an estimate for the production in 1913 (from the data given for the years from 1915 onwards in Table G 13), the general leather position may be summarised in approximate terms as follows:—

	1913 £(000)	1921 £(000)	1922 £(000)
Production . . . .	450	760	690
Imports . . . . .	200	110	170
Consumption . . . .	650	870	860

#### REGULATIONS AFFECTING TANNING INDUSTRY

Tanning and leather-dressing establishments are scheduled under the Public Health Act, No. 36 of 1919, as industries to which certain regulations, promulgated by the Minister of Public Health in October, 1922, are applicable.

#### SPECIFICATION FOR LEATHER

For some time past the importation of leather into South Africa has been regulated by means of a specification defining "adulterated leather." In the tariff regulations issued in 1918 the following definition was used.

"Leather, other than roan, morocco, patent, enamelled and fancy leather, and valve hides, shall be deemed to be adulterated, weighted, or loaded if it contains:—

- (1) when vegetable tanned—
  - (a) over 2 per cent mineral ash.
  - (b) over 1 per cent glucose.
  - (c) any barium or lead salt.
  - (d) any magnesium sulphate.

(2) when mineral or combination tanned—

- (a) over  $1\frac{1}{2}$  per cent mineral ash other than tanning agent.
- (b) any glucose.
- (c) any barium or lead salt.
- (d) any magnesium sulphate."

"Adulterated" leather is subjected to a special import duty, viz. 6d. per lb., or 25 per cent *ad valorem*, whichever rate returns the higher duty.

Tanners in the United Kingdom who export leather to South Africa considered that such a definition was an impossible one, as leather from a pure mimosa bark tannage could not satisfy the definition laid down regarding magnesium sulphate, on account of the fact that the tannin agent itself contains magnesium. The United Tanners' Federation put forward accordingly the following proposals :—

- (a) In place of the figure of 1 per cent for glucose,  $2\frac{1}{2}$  per cent.
- (b) In place of the entire prohibition of magnesium sulphate, either  $1\frac{1}{2}$  per cent of magnesium sulphate or alternatively three-tenths of 1 per cent of magnesium oxide.

Such alterations, it was pointed out, would permit of the importation into South Africa of leather made from wattle bark, the use of which would naturally be seriously restricted if leather tanned almost entirely from it could be deemed to be "adulterated."

This subject was under consideration by the appropriate authorities when Mr. Hutchings (whose report is referred to above) was in South Africa in 1922, and he discussed the matter with the authorities. In a memorandum he submitted he referred to the possible effect of the adoption of the definition in the following terms :—

"Leathers vary greatly in analysis, and the effect is to penalise good leathers which would pass the English standard, but may just pass or just fail to pass that of the Union. I have a case of ten bales of one tannage of consecutive numbers 15 to 24. Of these numbers 16, 17, 20, and 24 were classed by the South African Customs as pure, and Nos. 15, 18, 19, 21, 22, and 23 were passed as adulterated.

"The effect is to put a premium on heavy adulteration. If this leather costs 24d. per lb. to produce the tanner must get 24s. to see his own again for a 12-lb. bend, but if he adds 1 lb. of loading at, say 6d., he produces a 13-lb. bend for 24s. 6d., or at a cost of 22·61d. per lb.

"If he adds  $1\frac{1}{2}$  lb. at a cost of, say, 9d., he produces a  $13\frac{1}{2}$  lb. bend for 24s. 9d., or at a cost of 22d. per lb. It is therefore an inducement if there is any doubt about passing the standard to load heavily enough to pay for the extra duty. I am told that considerable discretion is used before condemning a leather. In this case, unless the analysing authority is the same in all cases, there would be danger of variation in treatment which would be harmful."

Subsequently the Union authorities introduced a Bill into the legislature on the subject and passed "The Adulterated Leather Act." This Act, reproduced in full in the Appendix, regulates not only the importation of leather, but also the production of leather in the Union. The chemical criterion referred to above, so far as vegetable-tanned leather is concerned, has been modified to read as follows :—

- (a) No barium or lead compound.
- (b) Not more than  $2\frac{1}{2}$  per cent of mineral ash or not more than 2 per cent of glucose.

This modification is considered satisfactory, but it is also thought that technical difficulties may arise in the working of the Act, e.g. with regard to the taking of samples and method of analysis.

#### BOOTS AND SHOES

Boot manufacturing is one of the most prominent of South African industries, and one which has been much to the front in discussions in leather trade circles in the last few years on account of the policy of the Union Government regarding importation of boots and shoes. Statistics are available concerning production, etc., on the same comprehensive scale as in the case of the leather industry. Table G 17 gives many general particulars of boot factories. The number working increased from 58 in 1915–16 to 148 in 1921–22. Ninety-one of these are in Cape Colony, 35 in the Transvaal, and 20 in Natal. There are, however, few large factories; only 8 of the 48 employing more than 100 workpeople. The total number of employees in 1921–22 was 3,283, receiving £305,000 in wages, while the value of the fixed capital was £480,000. In 1915–16 and in 1916–17, when the value of the fixed capital was returned as £112,000 and £178,000 respectively, the total capital invested was returned as £255,000 and £379,000. Prices in the earlier of the periods mentioned had not risen much above pre-War, and it would appear, therefore, from these figures that rather less than one-half of the capital employed in boot manufacturing in South Africa is locked up in fixed assets. The corresponding figure for the tan-yard is less than one-third.

The total values of the materials used in 1915–16 and in 1921–22 were £324,000 and £738,000 respectively, the values of the corresponding products being £504,000 and £1,250,000. At the earlier date the proportion of materials used to output was 64 per cent, but for the later date it was 59 per cent, which proportions, like the corresponding ones in the case of tanneries, are below those holding in other countries for which the information is available.

The statistics collected since 1916 of the materials used in South African boot factories (see Table G 18) enable a very comprehensive view of the industry to be obtained. Approximately 66 per cent of the materials used are of South African origin, though this proportion shows a marked tendency to diminish, being 78 per cent in 1916–17 and falling continuously to 66 per cent five years later. In the case of leather purchased by weight (mainly

# SOUTH AFRICA

297

sole leather) the proportion of imported leather shown in Table G 18 was extremely small in 1920-21-22, but it is probable that later figures will show a substantial increase of imported material. In the case of leather purchased by measurement (upper leather entirely), imports play a much greater part and have increased considerably, though at a rate rather below that at which the home-produced article has developed.

Particulars of the output of boots and shoes are available in equal detail and are shown in Table G 19. The total output in 1921-22 was 1,827,000 pairs, this comparing with 1,620,000 pairs in 1916-17, and 2,165,000 pairs in the year of maximum output (1919-20). Other articles in addition to footwear were manufactured, while a substantial amount of repair work was done. The value of the footwear production in comparison with the total value of all work done and articles manufactured in the three years mentioned was :—

	Footwear. £	Total. £
1916-17 . . . . .	663,000	727,000
1919-20 . . . . .	1,510,000	1,675,000
1921-22 . . . . .	1,105,000	1,254,000

Particulars of imports of boots, shoes and slippers into South Africa are given in considerable detail in the official returns, and are set out in Tables G 20, 21, 22, and 23. Practically all the imports come from the United Kingdom, the only substantial item from other countries being women's boots from Switzerland.

The tables referred to can be summarised as follows :—

	Pairs (000)	
	1913	1922
Women's . . . . .	1,695	1,045
Men's . . . . .	2,020	376
Children's . . . . .	1,300	269
Slippers . . . . .	324	252
Total . . . . .	5,339	1,942
	Value £(000)	
	1913	1922
Women's . . . . .	374	654
Men's . . . . .	658	291
Children's . . . . .	186	88
Slippers . . . . .	28	39
Total . . . . .	1,246	1,072

The post-War figures show a very considerable decrease in comparison with those for 1913. Judged by the figures of exports of boots and shoes from the United Kingdom to South Africa in 1923, however, later figures when available will show a substantial increase on those for 1921 and 1922.



There is a small export trade in boots and shoes (of which details are given in Table G 24), the figures for the three years being as follows :—

	Pairs	Value (£)
1913 . . . . .	16,200	4,400
1921 . . . . .	51,200	37,800
1922 . . . . .	25,500	18,500

Making an estimate for the production in 1913 (from the data given for the years from 1915 onwards in Table G 19), the general position regarding boots and shoes can be summarised in approximate terms as follows :—

	1913	Pairs (000) 1921	1922
Production . . . . .	1,000	1,660	1,830
Imports . . . . .	5,340	1,120	1,940
Exports . . . . .	20	50	30
Consumption . . . . .	6,320	2,730	3,740

It will be seen from the last figures that the falling away in imports is by no means accounted for by increased production. No doubt there were considerable stocks available from the heavy importation in previous years for use in 1921 and 1922, but under all the circumstances it is difficult to estimate at all accurately the actual consumption of boots and shoes.

The corresponding figures for value are :—

	1913	£(000) 1921	1922
Production . . . . .	400	1,080	1,120
Imports . . . . .	1,250	740	1,070
Exports . . . . .	—	40	20
Consumption . . . . .	1,650	1,780	2,170

Details of the import tariff on boots and shoes are given in the Appendix on page 317, but reference may be made here to the vigorous controversies which have raged regarding this tariff. During the War the local boot factories produced in very considerable quantities for the use of the troops from South Africa, and this, together with the difficulty of obtaining imported boots, naturally led to extension of manufacturing capacity. When the depression came in 1921, not only was the import duty on boots raised, but a complete, though temporary, embargo was placed upon the importation of certain classes. When, in 1922, the original period of the embargo expired, considerable controversy occurred regarding future policy. The boot manufacturers on the one hand desired the continuation of the embargo; importers, on the other hand, represented by the Cape Town Chamber of Commerce, sought the removal of the embargo, claiming that the surplus boots available in the country had been worked off. Ultimately a proclamation was issued which prohibited until June 30th, 1923, the importation of boots except under permit by the Commissioner of Customs,

and it was notified that, except under special circumstances, permits would not be issued for boots similar to those manufactured in the Union. An exhaustive list of such boots was published (Notice No. 1468, 5th September, 1922), and in this way importation was controlled until June, 1923. The embargo and the consequential licensing system were then abolished. It was decreed that the import duty of 30 per cent *ad valorem* (with a rebate of  $\frac{3}{4}$  per cent *ad valorem* in the case of British goods) should be retained for five years and should then be reduced by  $2\frac{1}{2}$  per cent per annum until  $17\frac{1}{2}$  per cent is reached, which will be the permanent level of the duty.

#### HARNESS AND SADDLERY AND LEATHER GOODS

The production of harness and saddlery is, relatively, more important in the Union than in any of the other Empire countries separately dealt with in this book. Statistics of production are available for the manufacture of harness and saddlery and leather goods. Table G 25 gives many general particulars of factories manufacturing harness and saddlery and leather goods. The number working increased from 54 in 1915-16 to 92 in 1918-19, and diminished to 87 in 1921-22; 39 of these are in Cape Colony and 27 in the Transvaal. Few of these factories, however, are large ones, only three employing more than fifty workpeople. The total number of employees in 1921-22 was only 970 in the 87 establishments, these receiving in all £99,000 in wages. The value of the fixed capital was £166,000. In 1915-16 and in 1916-17, when the fixed capital was returned as £61,000 and £76,000 respectively, the total capital invested was returned as £174,000 and £209,000. In these years, accordingly, about 36-38 per cent of the total capital employed in the manufacture of harness and saddlery and leather goods was locked up in fixed assets.

The total values of the materials used in 1915-16 and in 1921-22 were £124,000 and £144,000 respectively, the values of the corresponding products being £260,000 and £300,000, in each case the value of the materials being about 48 per cent of the value of the products.

Statistics of materials used in the industry are available since 1917 (see Table G 26). In 1917-18 nearly 60 per cent of the materials used were of local production, the figure for 1921-22 being 64 per cent. The imported goods, however, are mainly the accessories used in manufacture, the proportion of imported leather in 1921-22 being only 8 per cent.

Included in the factories referred to are some manufacturing boots and shoes in addition to other leather goods, and in Table G 27, which gives particulars of output, statistics of these are included. The main production, however, is harness and saddlery and portmanteaux and bags. The former item appears to be diminishing, though figures of value only are available, these showing a fall from £307,000 in 1919-20 to £152,000 in 1921-22; 22,300 leather bags were produced in 1920-21, of average value nearly £3 each, and 26,600 in 1921-22, of average value nearly £2 each.

Particulars of imports of harness and saddlery are given in Table G 28. In

## LEATHER, HIDES, AND SKINS

1913 the value totalled £70,000, practically all from the United Kingdom, but in 1922, 15 per cent of the total of £23,000 came from India. Corresponding figures of the imports of bags and trunks are shown in Table G 29 for 1922. In that year, 85 per cent of the total of £24,000 came from the United Kingdom. A substantial amount of leather belting is imported (see Table G 30), totalling £42,000 in 1922, the United States and the United Kingdom sharing equally in the supply. A considerable amount of leather manufactures not separately specified is imported, the total values under this head being £126,000 in 1913 and £65,000 in 1922, of which £102,000 and £59,000 respectively came from the United Kingdom (see Table G 31).

There is a small export of harness and saddlery from the Union (less than £2000 in 1913 and £1000 in 1922), but no exports of other leather manufactures (other than boots already referred to) are recorded.

Making an estimate for 1913, the general position regarding leather manufactures other than boots can be summarised approximately as follows :—

	1913	Value £(000) 1921	1922
Production . . .	250	310	240
Imports . . .	196	135	154
Exports . . .	2	3	1
Consumption . . .	440	440	390

# SOUTH AFRICA

301

TABLE G 1

## PARTICULARS AND NUMBER OF CATTLE AT 30TH APRIL, 1921<sup>1</sup>

Cattle, under 1 year . . . . .	1,001,268	Cows and heifers, 2 years and over . . . . .	2,263,778
" 1 year and under 2 years . . . . .	904,206	Oxen, 2 years and over . . . . .	1,916,332
Bulls, 2 years and over . . . . .	113,099		
		Total . . . . .	8,557,089

## NUMBER OF SHEEP AT 30TH APRIL, 1921

Merino sheep . . . . .	20,756,130	Persian lambs (non-woolled) . . . . .	222,330
" lambs . . . . .	4,998,433	Africander sheep . . . . .	2,333,483
Other woolled sheep . . . . .	1,462,752	" lambs . . . . .	588,714
" " lambs . . . . .	392,304	Non-woolled sheep (including lambs) . . . . .	47,126
Woolled sheep (including lambs) . . . . .	147,594		
Persian " (non-woolled) . . . . .	780,646	Total . . . . .	31,729,512

## NUMBER OF MULES, DONKEYS AND GOATS AT 30TH APRIL, 1921

Mules . . . . .	116,789	Goats of various types . . . . .	7,836,696
Donkeys (including foals) . . . . .	722,238		
		Total . . . . .	8,675,723

TABLE G 2

## EXPORTS OF WET OX- AND COW-HIDES

Total Exports : Included in G 4 for 1913, 8,021,900 lb. (£193,122) in 1922.  
 To Empire Countries : Included in G 4 for 1913, 3,300,880 lb. (£80,527) in 1922.  
 (*United Kingdom*) : Included in G 4 for 1913, 3,298,700 lb. (£80,474) in 1922.  
 To Foreign Countries : Included in G 4 for 1913, 4,721,020 lb. (£112,595) in 1922.  
 (*Belgium*) : Included in G 4 for 1913, 968,430 lb. (£21,646) in 1922.  
 (*France*) : Included in G 4 for 1913, 2,344,642 lb. (£58,826) in 1922.  
 (*Germany*) : Included in G 4 for 1913, 492,834 lb. (£11,454) in 1922.  
 (*United States*) : Included in G 4 for 1913, 648,630 lb. (£14,796) in 1922.

TABLE G 3

## EXPORTS OF DRY OX- AND COW-HIDES

Total Exports : Included in G 4 for 1913, 10,013,328 lb. (£283,269) in 1922.  
 To Empire Countries : Included in G 4 for 1913, 7,811,539 lb. (£215,697) in 1922.  
 (*United Kingdom*) : Included in G 4 for 1913, 7,811,539 lb. (£215,697) in 1922.  
 To Foreign Countries : Included in G 4 for 1913, 2,201,789 lb. (£67,572) in 1922.  
 (*Belgium*) : Included in G 4 for 1913, 456,551 lb. (£11,950) in 1922.  
 (*Germany*) : Included in G 4 for 1913, 1,627,235 lb. (£51,189) in 1922.

<sup>1</sup> These particulars are as set out in the Report on the Census of Agriculture. The numbers in the classes specified do not add up to the total stated.

TABLE G 4

## EXPORTS OF OX- AND COW-HIDES (TOTAL)

Total Exports: 21,279,840 lb. (£794,937) in 1913, 18,033,000 lb. (£476,391) in 1922.

To Empire Countries: 19,870,393 lb. (£743,417) in 1913, 11,111,000 lb. (£296,224) in 1922.

(United Kingdom): 19,831,843 lb. (£741,162) in 1913, 11,019,000 lb. (£296,171) in 1922.

To Foreign Countries: 1,409,447 lb. (£51,520) in 1913, 6,922,000 lb. (£180,167) in 1922.

(Belgium): 271,504 lb. (£9,037) in 1913, 1,424,000 lb. (£33,596) in 1922.

(France): 1,819 lb. (£97) in 1913, 2,351,000 lb. (£59,076) in 1922.

(Germany): 562,476 lb. (£15,111) in 1913, 2,119,000 lb. (£62,643) in 1922.

(United States): 460,681 lb. (£22,674) in 1913, 681,000 lb. (£16,042) in 1922.

The number of hides and skins for 1913 are as follows:—

Hides, ox- and cow-, 883,503; goatskins, 3,159,736; sealskins, 9,901; sheepskins, 7,369,891.

The number of hides and skins for 1922 are as follows:—

Hides, ox- and cow-, 613,936; goatskins, 2,155,216; sealskins, 12,766; sheepskins, 7,719,091.

TABLE G 5

## EXPORTS OF SHEEPSKINS

Total Exports: 32,196,400 lb. (£889,611) in 1913, 38,989,200 lb. (£1,237,828) in 1922.

To Empire Countries: 30,902,373 lb. (£842,775) in 1913, 23,440,994 lb. (£808,018) in 1922.

(United Kingdom): 30,892,035 lb. (£842,501) in 1913, 23,385,259 lb. (£806,190) in 1922.

(Canada): 10,338 lb. (£274) in 1913, 55,735 lb. (£1,828) in 1922.

To Foreign Countries: 1,294,027 lb. (£46,836) in 1913, 15,548,206 lb. (£429,810) in 1922.

(France): 377,857 lb. (£8,913) in 1913, 10,495,297 lb. (£278,365) in 1922.

(Germany): 36,046 lb. (£1,267) in 1913, 300,244 lb. (£6,093) in 1922.

(United States): 862,854 lb. (£36,201) in 1913, 4,592,296 lb. (£141,112) in 1922.

(Holland): None in 1913, 145,193 lb. (£3,658) in 1922.

TABLE G 6

## EXPORTS OF GOATSKINS

Total Exports : 9,104,691 lb. (£325,936) in 1913, 6,287,205 lb. (£216,879) in 1922.  
 To Empire Countries : 9,012,935 lb. (£322,948) in 1913, 4,274,372 lb. (£141,299) in 1922.  
 (*United Kingdom*) : 9,005,990 lb. (£322,557) in 1913, 4,264,075 lb. (£140,877) in 1922.  
 To Foreign Countries : 91,756 lb. (£2,988) in 1913, 2,012,833 lb. (£75,580) in 1922.  
 (*France*) : 23,077 lb. (£1,009) in 1913, 202,839 lb. (£10,267) in 1922.  
 (*Germany*) : 54 lb. (£4) in 1913, 566,225 lb. (£11,105) in 1922.  
 (*Holland*) : None in 1913, 188,093 lb. (£6,731) in 1922.  
 (*United States*) : 68,000 lb. (£1,942) in 1913, 1,043,513 lb. (£46,999) in 1922.

TABLE G 7

## EXPORTS OF SEALSKINS

Total Exports : 153,355 lb. (£5,822) in 1913, 146,746 lb. (£14,034) in 1922.  
 To Empire Countries : 153,115 lb. (£5,774) in 1913, 146,746 lb. (£14,034) in 1922.  
 (*United Kingdom*) : 153,115 lb. (£5,774) in 1913, 146,746 lb. (£14,034) in 1922.  
 To Foreign Countries : 240 lb. (£48) in 1913, none in 1922.

TABLE G 8

## EXPORTS OF WATTLE BARK.

Total Exports : 145,717,738 lb. (£309,329) in 1913, 271,716,264 lb. (£799,942) in 1922.  
 To Empire Countries : 108,123,508 lb. (£226,132) in 1913, 67,151,527 lb. (£200,800) in 1922.  
 (*United Kingdom*) : 99,203,808 lb. (£208,192) in 1913, 57,571,917 lb. (£173,925) in 1922.  
 (*Australia*) : 8,871,278 lb. (£17,845) in 1913, 7,591,797 lb. (£21,033) in 1922.  
 (*India*) : None in 1913, 1,056,926 lb. (£3,220) in 1922.  
 (*Egypt*) : 586,959 lb. (£1,127) in 1913, 574,649 lb. (£1,477) in 1922.  
 To Foreign Countries : 37,594,230 lb. (£83,197) in 1913, 204,564,737 lb. (£599,142) in 1922.  
 (*Japan*) : None in 1913, 13,303,425 lb. (£41,390) in 1922.  
 (*Belgium*) : 900,109 lb. (£2,173) in 1913, 6,767,751 lb. (£18,571) in 1922.

(France) : 2,124,703 lb. (£4,237) in 1913, 5,481,681 lb. (£16,539) in 1922.

(Germany) : 30,745,850 lb. (£68,318) in 1913, 147,461,826 lb. (£433,400) in 1922.

(United States) : 228,246 lb. (£535) in 1913, 20,018,848 lb. (£55,657) in 1922.

(Holland) : None in 1913, 6,952,599 lb. (£19,808) in 1922.

(Spain) : None in 1913, 2,253,360 lb. (£6,920) in 1922.

TABLE G 9

## EXPORTS OF BARK EXTRACT

Total Exports : None in 1913, 24,341,472 lb. (£203,197) in 1922.

To Empire Countries : None in 1913, 13,279,899 lb. (£111,272) in 1922.

(United Kingdom) : None in 1913, 13,068,823 lb. (£109,467) in 1922.

(Australia) : None in 1913, 147,767 lb. (£1,222) in 1922.

To Foreign Countries : None in 1913, 11,061,573 lb. (£91,925) in 1922.

(United States) : None in 1913, 2,293 lb. (£30) in 1922.

(Belgium) : None in 1913, 929,697 lb. (£8,179) in 1922.

(France) : None in 1913, 396,431 lb. (£2,963) in 1922.

(Germany) : None in 1913, 8,262,759 lb. (£68,912) in 1922.

(Holland) : None in 1913, 785,695 lb. (£6,157) in 1922.

(Italy) : None in 1913, 192,437 lb. (£1,443) in 1922.

(Japan) : None in 1913, 136,878 lb. (£1,196) in 1922.

(Spain) : None in 1913, 226,440 lb. (£2,020) in 1922.

TABLE G 10

## AREA UNDER WATTLES, 1922

Age.	Cape morgen.	Natal morgen.	Transvaal morgen.	C.F.S. morgen.	Total morgen.
Under and including 1 year	129	7,258	598	—	7,985
1 year and under 2 years	34	6,632	1,089	1	7,756
2 " " 3 " "	210	6,004	955	—	7,169
3 " " 4 " "	135	5,278	1,055	7	6,475
4 " " 5 " "	73	5,430	1,463	—	6,966
5 " " 6 " "	32	7,012	476	12	7,532
6 " " 7 " "	88	6,225	692	5	7,010
7 " " 8 " "	101	7,548	1,036	3	8,688
8 " " 9 " "	24	8,692	1,090	10	9,816
9 " " 10 " "	130	7,306	968	62	8,466
10 and over	838	15,951	3,242	10	20,041
Totals	1,794	83,336	12,664	110	97,904

(Morgen equals 2·12 acres)

# SOUTH AFRICA

305

TABLE G 11  
GENERAL PARTICULARS OF TANNERIES IN SOUTH AFRICA

	Number of Tanneries.	Value of Land and Buildings.	Value of Machinery, Plant and Tools.	Number of Employees.	Amount of Salaries and Wages paid.	Articles Manufactured or Produced.	Value added to Materials by Process of Manufacture or Treatment.
1915-16	19	£ 79,391	£ 40,432	799	£ 55,067	£ 475,862	£ 136,488
1916-17	23	88,126	45,768	920	62,539	605,761	147,215
1917-18	25	118,859	52,669	1,245	87,567	963,688	282,488
1918-19	28	153,326	68,020	1,409	100,695	1,005,662	264,594
1919-20	31	163,664	81,970	1,579	122,215	1,393,798	377,114
1920-21	30	172,900	100,405	1,373	116,127	831,993	268,071
1921-22	30	177,000	116,000	1,335	128,150	687,000	257,381

TABLE G 12  
MATERIALS USED IN TANNERIES IN SOUTH AFRICA  
(Ton = 2,000 lb.)

	Calf and Yearling Hides.	Other Hides.	Calf and Yearling Hides.	Other Hides.	Sheep-skins.	Goat-skins.	Other Skins.	Sheep-skins.	Goat-skins.	Other Skins.
	Tons.	Tons.	£	£	No.	No.	No.	£	£	£
1915-16	—	—	270,413	—	—	—	—	—	—	—
1916-17	—	—	365,743	—	85,515	—	—	19,320	—	—
1917-18	999	4,780	101,846	446,811	57,926	67,509	5,290	10,725	19,653	1,084
1918-19	37	5,838	4,308	582,468	79,148	56,754	13,681	9,530	19,950	3,168
1919-20	68	5,849	10,878	801,406	130,736	37,847	15,980	29,166	16,400	2,795
1920-21	343	4,512	27,941	390,175	85,250	38,773	8,779	8,680	9,928	1,156
1921-22	5,275	—	294,000	—	103,000	41,000	29,000	10,000	6,000	4,000

	Wattle Bark.	Wattle Bark Extract.	Other Vegetable Tanning Materials.	Mineral Tanning Materials.	Lime and other Materials used in Liming.	Oil, Fat, Tallow and other Materials.	Dyeing Materials.	Other Materials (including packing).
Tons.	£	£	£	£	£	£	£	£
4,000	22,683	—	—	—	—	—	—	46,278
4,371	27,091	—	12,016	9,104	4,711	10,904	2,387	7,270
5,267	30,288	1,730	15,161	10,943	5,972	25,289	4,111	7,587
5,959	33,528	2,479	22,977	13,644	6,121	24,286	6,444	12,165
6,131	45,730	4,488	33,875	18,077	5,722	27,701	7,220	13,226
4,833	40,045	4,765	20,064	16,460	3,943	20,539	6,042	14,144
4,590	28,000	5,000	24,000	14,000	6,000	18,000	6,000	15,000



## LEATHER, HIDES, AND SKINS

TABLE G 12—continued

	Total Value (cost) of Materials used. £	Value of S.A. Materials used. £	Value of imported materials used. £
1915-16 . . .	339,374	295,277	44,097
1916-17 . . .	458,546	422,299	36,247
1917-18 . . .	681,200	629,225	51,975
1918-19 . . .	741,069	665,757	75,311
1919-20 . . .	1,016,684	920,924	95,760
1920-21 . . .	563,892	500,357	63,535
1921-22 . . .	430,000	365,000	65,000

TABLE G 13

## ARTICLES MANUFACTURED OR PRODUCED IN TANNERIES

	SOLE LEATHER.				UPPER LEATHER.				Leather Harness, including Straps, Bridle, Rein, Saddle, Skirt, and other Leathers.	
	Vege- table tanned.	Chrome tanned.	Vege- table tanned.	Chrome tanned.	Vege- table tanned.	Chrome tanned.	Vege- table tanned.	Chrome tanned.		
	lb.	lb.	£	£	lb.	lb.	£	£	lb.	£
1915-16	—	—	—	—	—	—	—	—	—	—
1916-17	3,240,513	152,708	308,226	28,417	1,053,448	212,433	133,300	19,513	460,878	55,558
1917-18	4,108,259	321,727	445,997	51,532	1,402,380	559,395	215,616	49,405	541,278	92,823
1918-19	4,297,993	269,789	460,074	57,120	1,441,101	179,907	221,708	48,000	645,316	103,027
1919-20	5,349,403	462,018	644,010	105,460	1,385,081	454,334	273,130	48,313	1,066,445	188,118
1920-21	3,513,547	477,205	491,807	67,375	749,471	620,391	124,850	81,227	707,841	96,207
1921-22	4,637,000	437,000	350,000	59,000	634,000	464,000	82,000	73,000	620,000	72,000

Other Leather.		Skins.		Total value of articles Manufactured.	Total value of Vegetable Tanned leather.	Total value of chrome tanned Leather Produced.
lb.	£	No.	£	£	£	£
—	455,154	—	—	475,802	—	—
328,599	28,290	83,631	28,772	695,761	441,526	47,930
644,022	58,068	110,562	42,075	963,688	802,081	100,997
385,922	42,952	124,081	42,535	1,095,662	800,951	116,553
393,503	57,574	126,300	42,322	1,393,798	1,102,799	154,412
237,144	23,323	78,477	23,881	831,963	642,263	152,532
217,000	17,000	66,000	18,000	687,000	—	—

TABLE G 14

## IMPORTS OF ENAMELLED, MOROCCO, AND PATENT LEATHER IN THE PIECE

Total Exports : 56,351 lb. (£9,614) in 1913, 24,247 lb. (£10,314) in 1922.  
 From Empire Countries : 21,995 lb. (£4,084) in 1913, 14,515 lb. (£5,389) in 1922.  
 (United Kingdom) : 20,637 lb. (£3,948) in 1913, 9,488 lb. (£2,889) in 1922.  
 (Canada) : None in 1913, 3,222 lb. (£1,954) in 1922.  
 From Foreign Countries : 34,356 lb. (£5,530) in 1913, 9,732 lb. (£4,925) in 1922.  
 (United States) : 33,950 lb. (£5,463) in 1913, 6,452 lb. (£3,640) in 1922.

TABLE G 15

## IMPORTS OF PIGSKIN LEATHER IN THE PIECE

Total Imports : 49,905 lb. (£7,756) in 1913, 4,320 lb. (£1,365) in 1922.  
 From Empire Countries : 9,100 lb. (£2,245) in 1913, 3,062 lb. (£1,082) in 1922.  
 (*United Kingdom*) : 9,100 lb. (£2,245) in 1913, 3,062 lb. (£1,082) in 1922.  
 From Foreign Countries : 40,805 lb. (£5,511) in 1913, 1,258 lb. (£283) in 1922.  
 (*Austria-Hungary*) : 39,435 lb. (£5,263) in 1913, none in 1922.

TABLE G 16

## IMPORTS OF OTHER KINDS OF LEATHER IN THE PIECE

Total Imports : 2,652,326 lb. (£196,281) in 1913, 787,663 lb. (£158,684) in 1922.  
 From Empire Countries : 2,596,575 lb. (£191,370) in 1913, 748,292 lb. (£143,760) in 1922.  
 (*United Kingdom*) : 1,212,315 lb. (£99,286) in 1913, 524,799 lb. (£103,483) in 1922.  
 (*Australia*) : 1,382,461 lb. (£91,970) in 1913, 217,070 lb. (£39,370) in 1922.  
 From Foreign Countries : 55,751 lb. (£4,911) in 1913, 39,371 lb. (£14,924) in 1922.  
 (*France*) : 1,775 lb. (£313) in 1913, 4,179 lb. (£1,595) in 1922.  
 (*Germany*) : 7,954 lb. (£914) in 1913, 4,257 lb. (£2,689) in 1922.  
 (*United States*) : 40,490 lb. (£3,307) in 1913, 16,224 lb. (£6,690) in 1922.  
 (*Switzerland*) : None in 1913, 13,097 lb. (£3,425) in 1922.

TABLE G 17

## GENERAL PARTICULARS OF BOOT AND SHOE FACTORIES AND REPAIRING ESTABLISHMENTS

	Number of Factories.	Value of Land and Buildings.	Value of Machinery, Plant and Tools.	Number of Employees.	Amount of Salaries and Wages Paid.	Articles Manufactured or Produced.	Value added to Materials by Process of Manufacture or Treatment.
		£	£		£	£	£
1915-16 . . .	58	57,993	54,253	1,662	98,842	503,999	179,954
1916-17 . . .	104	91,107	86,516	2,388	129,398	726,712	227,833
1917-18 . . .	120	108,087	94,594	2,644	161,315	965,550	329,377
1918-19 . . .	138	153,415	141,766	3,399	238,759	1,291,765	426,810
1919-20 . . .	147	191,931	192,649	3,630	304,189	1,674,598	558,228
1920-21 . . .	146	210,040	265,526	2,954	277,925	1,191,206	411,863
1921-22 . . .	148	236,000	241,000	3,283	304,519	1,250,000	512,000

## LEATHER, HIDES, AND SKINS

TABLE G 18

## MATERIALS USED IN BOOT AND SHOE FACTORIES AND REPAIRING ESTABLISHMENTS

	Leather by Weight.				Leather by Measurement.			
	South African.		Imported.		South African.		Imported.	
	lb.	£	lb.	£	Sq. ft.	£	Sq. ft.	£
1916-17	2,695,017	343,732	277,209	36,874	352,483	24,404	276,169	18,435
1917-18	3,907,738	429,511	219,201	24,801	333,776	31,328	552,007	48,667
1918-19	4,403,955	555,250	110,165	12,178	617,965	61,231	972,853	95,684
1919-20	4,045,255	641,861	102,502	18,401	1,209,154	127,923	1,121,330	150,468
1920-21	3,289,732	419,274	64,109	11,964	1,122,022	95,909	959,275	112,976
1921-22	4,055,000	354,000	27,000	5,000	1,734,000	111,000	1,214,000	120,000
Uppers and Cut Soles purchased.								
	South African.		Imported.		Value of S.A. Materials.		Value of Vegetable-Tanned Leather.	
	£	£	Total Value of all Materials used (£)		£	£	£	£
	4,171	3,081	498,879		388,327	—	—	—
	7,651	5,592	636,173		484,796	359,931	72,573	—
	24,319	5,123	864,955		653,946	584,370	162,382	—
	17,126	19,477	1,116,379		805,466	664,259	316,782	—
	13,964	5,074	779,343		538,945	462,531	192,793	—
	10,000	12,000	738,000		486,000	—	—	—

TABLE G 19

## ARTICLES MANUFACTURED OR PRODUCED IN BOOT AND SHOE FACTORIES AND REPAIRING ESTABLISHMENTS

	Boots and Shoes.		Slippers.		Veldschoens.		Leggings and Gaiters.		Boot and Shoe Uppers for sale as such.	
	Pairs.	£	Pairs.	£	Pairs.	£	Pairs.	£	Pairs.	£
1915-16	—	493,044	—	—	—	—	—	—	—	—
1916-17	1,151,599	546,918	44,050	10,199	425,530	106,272	4,838	4,224	—	53
1917-18	1,291,105	741,526	123,813	51,616	350,853	106,515	4,800	5,650	1,452	592
1918-19	1,629,637	1,061,222	26,083	10,089	291,555	109,194	14,681	9,067	61,968	17,945
1919-20	1,806,917	1,383,856	42,869	14,800	315,243	110,549	3,800	3,600	73,444	29,425
1920-21	1,308,135	978,438	41,730	15,242	156,196	58,365	3,415	3,586	34,409	15,525
1921-22	1,572,000	1,025,000	24,000	8,000	231,000	72,000	4,000	4,000	79,000	19,000
Total Value of Articles Manufactured and Work Done.										
	Parts of Boots and Shoes other than Uppers.		Harness and Saddlery.		Other Articles Manufactured.		Value of Repair Work done for Customers.		Total Value of Articles Manufactured and Work Done.	
	£	£	£	£	£	£	£	£	£	£
1915-16	—	—	—	—	—	—	10,955	—	503,999	—
1916-17	—	—	—	—	23,628	—	35,418	—	726,712	—
1917-18	1,708	—	5,230	—	9,849	—	42,864	—	965,550	—
1918-19	1,080	—	17,653	—	8,894	—	56,621	—	1,291,765	—
1919-20	1,080	—	29,917	—	20,721	—	80,650	—	1,674,598	—
1920-21	3,095	—	15,704	—	16,284	—	84,785	—	1,191,206	—
1921-22	—	—	8,000	—	29,000	—	85,000	—	1,250,000	—

# SOUTH AFRICA

309

TABLE G 20

## IMPORTS OF BOOTS AND SHOES (CHILDREN'S)

Total Imports : 1,299,982 pairs (£186,136) in 1913, 269,437 pairs (£87,864) in 1922.  
 From Empire Countries : 1,267,528 pairs (£181,958) in 1913, 257,678 pairs (£83,348) in 1922.  
 (United Kingdom) : 1,257,459 pairs (£181,953) in 1913, 256,698 pairs (£83,216) in 1922.  
 From Foreign Countries : 32,454 pairs (£4,178) in 1913, 11,759 pairs (£4,516) in 1922.  
 (Switzerland) : 6,639 pairs (£1,310) in 1913, 8,081 pairs (£3,545) in 1922.

TABLE G 21

## IMPORTS OF BOOTS AND SHOES (WOMEN'S)

Total Imports : 1,694,000 pairs (£374,395) in 1913, 1,044,000 pairs (£654,099) in 1922.  
 From Empire Countries : 1,527,306 pairs (£332,363) in 1913, 884,230 pairs (£529,432) in 1922.  
 (United Kingdom) : 1,527,192 pairs (£332,339) in 1913, 877,629 pairs (£528,024) in 1922.  
 From Foreign Countries : 167,437 pairs (£42,032) in 1913, 128,426 pairs (£89,164) in 1922.  
 (Austria-Hungary) : 46,245 pairs (£9,095) in 1913, 6,203 pairs (£4,477) in 1922.  
 (Belgium) : 76 pairs (£30) in 1913, 1,570 pairs (£2,405) in 1922.  
 (France) : 6,648 pairs (£661) in 1913, 4,927 pairs (£3,413) in 1922.  
 (Switzerland) : 49,909 pairs (£13,578) in 1913, 111,176 pairs (£76,879) in 1922.  
 (United States) : 35,042 pairs (£15,481) in 1913, 32,000 pairs (£35,485) in 1922.

TABLE G 22

## IMPORTS OF BOOTS AND SHOES (MEN'S)

Total Imports : 2,019,000 pairs (£657,686) in 1913, 376,000 pairs (£291,238) in 1922.  
 From Empire Countries : 1,934,000 pairs (£627,559) in 1913, 363,000 pairs (£278,000) in 1922.  
 (United Kingdom) : 1,934,000 pairs (£627,528) in 1913, 361,000 pairs (£277,453) in 1922.  
 From Foreign Countries : 85,000 pairs (£30,127) in 1913, 13,000 pairs (£13,238) in 1922.  
 (United States) : 44,000 pairs (£25,297) in 1913, 7,000 pairs (£8,164) in 1922.

TABLE G 23

## IMPORTS OF SLIPPERS

Total Imports : 323,716 pairs (£28,278) in 1913, 252,142 pairs (£39,294) in 1922.  
 From Empire Countries : 249,739 pairs (£22,604) in 1913, 229,144 pairs (£35,318) in 1922.  
 (*United Kingdom*) : 249,501 pairs (£22,586) in 1913, 228,603 pairs (£35,168) in 1922.  
 From Foreign Countries : 73,977 pairs (£5,674) in 1913, 22,998 pairs (£3,976) in 1922.  
 (*France*) : 16,126 pairs (£1,127) in 1913, 5,775 pairs (£1,009) in 1922.  
 (*Germany*) : 19,664 pairs (£1,722) in 1913, 9,364 pairs (£1,464) in 1922.  
 (*United States*) : 3,806 pairs (£396) in 1913, 5,208 pairs (£1,048) in 1922.

TABLE G 24

## EXPORTS OF BOOTS AND SHOES (GRAND TOTALS)

Total Exports : 16,155 pairs (£4,376) in 1913, 25,476 pairs (£18,514) in 1922.  
 To Empire Countries : 4,631 pairs (£782) in 1913, 6,061 pairs (£3,561) in 1922.  
 (*United Kingdom*) : 4,512 pairs (£684) in 1913, 5,400 pairs (£2,973) in 1922.  
 To Foreign Countries : 11,524 pairs (£3,594) in 1911, 19,415 pairs (£14,953) in 1922.  
 (*Belgian Congo*) : 8,600 pairs (£2,775) in 1913, 16,441 pairs (£11,327) in 1922.  
 (*Portuguese East Africa*) : 107 pairs (£62) in 1913, 1,428 pairs (£1,063) in 1922.  
 (*United States*) : Not known in 1913, 1,450 pairs (£2,504) in 1922.

TABLE G 25

## GENERAL PARTICULARS OF HARNESS AND SADDLERY WORKS, LEATHER PORTMANTEAU AND BAG FACTORIES

	No. of Factories.	Value of Land and Buildings. £	Value of Machinery, Plant and Tools. £	No of Em- ployees.	Amount of Salaries and Wages Paid. £	Articles Manufac- tured or Produced. £	Value added to Materials by Process of Manufacture or Treatment. £
1915-16 . . .	54	52,933	8,449	820	62,009	260,027	135,987
1916-17 . . .	75	63,620	12,463	1,097	75,364	320,356	164,446
1917-18 . . .	87	98,778	15,690	1,133	75,384	345,690	179,963
1918-19 . . .	92.	127,948	18,033	1,265	96,247	366,879	188,555
1919-20 . . .	92	136,285	16,993	1,378	131,960	471,028	223,107
1920-21 . . .	87	139,392	17,879	1,164	119,301	366,347	179,172
1921-22 . . .	87	147,000	19,000	970	99,060	300,000	156,000

# SOUTH AFRICA

311

TABLE G 26

MATERIALS USED IN HARNESS AND SADDLERY WORKS, LEATHER PORTMANTEAU AND BAG FACTORIES

	Leather by Weight.				Leather by Measurement.				Total Value of all Materials used.	Value of S.A. Materials.	Value of Vegetable-Tanned Leather.	Value of Chrome-Tanned Leather.
	South African.		Imported.		South African.		Imported.					
	lb.	£	lb.	£	sq. ft.	£	sq. ft.	£				
1917-18	824,105	100,186	119,634	17,532	1,037	511	972	15,107	105,727	100,811	72,531	4,957
1918-19	911,098	109,738	149,628	22,429	7,777	894	51,759	7,739	178,324	114,937	138,975	2,806
1919-20	1,143,470	162,862	93,785	22,542	10,803	2,145	4,981	779	247,921	174,593	182,389	4,776
1920-21	672,482	108,803	69,902	11,857	32,998	2,374	39,512	2,238	187,175	121,418	123,991	2,810
1921-22	656,000	80,000	51,000	6,000	83,000	4,000	9,000	1,000	144,000	92,000	—	—

TABLE G 27

ARTICLES MANUFACTURED IN HARNESS AND SADDLERY WORKS AND LEATHER PORTMANTEAU AND BAG FACTORIES

	Boots and Shoes.		Slippers.		Veld-schoens.		Leggings and Gaiters.		Leather Portman-teaux and Bags.		Har-ness and Saddl-ery.		Lea-ther Laces.		Other Articles Manu-factured.		Value of Repair Work done.		Total Value of Articles Manu-factured and work done.	
	Pairs.	£	Pairs.	£	Pairs.	£	Pairs.	£	No.	£	£	£	£	£	£	£	£	£	£	
1917-18	11,408	5,889	199	91	6,691	2,044	5,000	4,500	—	23,742	235,672	—	—	—	27,754	45,398	345,690			
1918-19	8,078	4,295	—	—	3,509	3,500	5,000	5,000	—	30,549	242,699	—	—	—	27,425	53,411	300,879			
1919-20	12,058	9,302	1	1	7,383	4,917	1,009	1,599	—	55,959	307,016	—	0,803	—	23,150	59,251	471,028			
1920-21	4,542	3,439	241	115	4,713	2,366	1,429	1,396	22,366	65,221	208,785	—	—	—	39,179	54,849	300,347			
1921-22	11,522	5,000	—	—	3,381	2,000	2,042	1,000	26,666	50,000	152,000	—	—	—	32,000	58,000	300,000			

TABLE G 28

IMPORTS OF SADDLERY AND HARNESS

Total Imports : £69,587 in 1913, £22,877 in 1922.  
 From Empire Countries : £68,524 in 1913, £20,850 in 1922.  
*(United Kingdom)* : £68,202 in 1913, £17,034 in 1922.  
*(India)* : £40 in 1913, £3,472 in 1922.  
 From Foreign Countries : £1,063 in 1913, £2,027 in 1922.  
*(United States)* : £635 in 1913, £1,377 in 1922.



TABLE G 29

## IMPORTS OF BAGS AND TRUNKS

Total Imports : Not known in 1913, £23,938 in 1922.  
 From Empire Countries : Not known in 1913, £21,232 in 1922.  
 (*United Kingdom*) : Not known in 1913, £20,539 in 1922.  
 From Foreign Countries : Not known in 1913, £2,706 in 1922.  
 (*Germany*) : Not known in 1913, £2,257 in 1922.

TABLE G 30

## IMPORTS OF LEATHER BELTING

Total Imports : Not known in 1913, £41,642 in 1922.  
 From Empire Countries : Not known in 1913, £21,382 in 1922.  
 (*United Kingdom*) : Not known in 1913, £18,973 in 1922.  
 (*Dominion of Canada*) : Not known in 1913, £2,304 in 1922.  
 From Foreign Countries : Not known in 1913, £20,260 in 1922.  
 (*United States*) : Not known in 1913, £19,124 in 1922.

TABLE G 31

## IMPORTS OF LEATHER MANUFACTURES NOT OTHERWISE SPECIFIED

Total Imports : £126,135 in 1913, £64,888 in 1922.  
 From Empire Countries : £102,225 in 1913, £60,133 in 1922.  
 (*United Kingdom*) : £107,962 in 1913, £58,609 in 1922.  
 (*Australia*) : £215 in 1913, £1,247 in 1922.  
 From Foreign Countries : £23,910 in 1913, £4,755 in 1922.  
 (*Germany*) : £19,337 in 1913, £1,635 in 1922.  
 (*United States*) : £2,161 in 1913, £2,070 in 1922.

TABLE G 32

## IMPORTS OF GREASES AND OTHER SUBSTANCES FOR BATING, TANNING AND FINISHING OF LEATHER

Total Imports : Not known in 1913, £4,610 in 1922.  
 From Empire Countries : Not known in 1913, £3,799 in 1922..  
 (*United Kingdom*) : Not known in 1913, £3,799 in 1922.  
 From Foreign Countries : Not known in 1913, £811 in 1922.  
 (*United States*) : Not known in 1913, £649 in 1922.

TABLE G. 33

In addition to the particulars of imports and exports set out above, there are certain other imports and exports of interest, but the magnitude of these is too small to need separate tables. The particulars, however, are as follows :—

Imports of Sheepskins and Goatskins : £		Imports of Gambier : £	
1913 . . . . .	5,000	1913 . . . . .	200
1921 . . . . .	800	1921 . . . . .	200
1922 . . . . .	1,100	1922 . . . . .	500
Imports of Hides and Skins :		Imports of Tanning Bark :	
1913 . . . . .	7,700	1913 . . . . .	—
1921 . . . . .	10,200	1921 . . . . .	900
1922 . . . . .	5,500	1922 . . . . .	—
Imports of Valonia :		Imports of Sealskins :	
1913 . . . . .	200	1913 . . . . .	100
1921 . . . . .	500	1921 . . . . .	—
1922 . . . . .	1,000	1922 . . . . .	—
Imports of Sumach :		Exports of Saddlery and Harness :	
1913 . . . . .	200	1913 . . . . .	2,000
1921 . . . . .	500	1921 . . . . .	2,700
1922 . . . . .	200	1922 . . . . .	300
Imports of Myrobalans :		Exports of Leather not made up :	
1913 . . . . .	400	1913 . . . . .	200
1921 . . . . .	2,400	1921 . . . . .	2,700
1922 . . . . .	3,300	1922 . . . . .	3,600



## APPENDIX I

### TEXT OF CLAUSE RELATING TO IMPORTED LEATHER

#### ACT

To prohibit the manufacture or sale within, or the importation into, the Union of adulterated leather, and to make provision for other matters in connection with such prohibition. Be it enacted by the King's Most Excellent Majesty, the Senate and the House of Assembly of the Union of South Africa, as follows :—

1. The provisions of this Act shall apply only to sole leather, to leather which (in the piece) is sold or bought by weight, and to the leather soles of footwear : provided, however, that nothing in this Act contained shall apply to any such leather manufactured or imported for any specific purpose to which special exemption from the provisions of this Act may have been granted by the Governor-General.
2. (1) For the purposes of this Act adulterated leather shall mean leather to which the provision of this Act applies when it contains :—
  - (a) Any barium or lead compound ; or
  - (b) if vegetable tanned :
    - (i) more than two-and-a-half per cent of mineral ash ; or
    - (ii) more than two per cent of glucose.
  - (c) If mineral tanned :
    - (i) more than two per cent of mineral ash other than the mineral tanning agent ; or
    - (ii) more than one-half per cent of glucose.
  - (d) If tanned by vegetable and mineral agents combined :
    - (i) more than two per cent of mineral ash other than the mineral tanning agent ; or
    - (ii) more than one-and-a-half per cent of glucose.
- (2) The Governor-General may, by proclamation in the *Gazette*, from time to time vary the definition of adulterated leather given in sub-section (1) of this section by the addition thereto or withdrawal therefrom of prohibited or restricted ingredients or the alteration of the percentages of restricted ingredients.
3. (1) No person shall :
  - (a) import into the Union any adulterated leather or soles for footwear made of adulterated leather ;
  - (b) manufacture, or cause or permit to be manufactured, or sell, keep for sale, or cause or permit to be sold within the Union adulterated leather.
- (2) Every tanner in the Union shall cause his name to be imprinted on all sole leather prepared by him, and shall in all invoices, in respect of such leather, certify that such leather conforms to the requirements of this Act.
- (3) Any person who contravenes this section shall be guilty of an offence and liable on conviction to a fine not exceeding one hundred pounds for the first offence, and not exceeding two hundred pounds for a second or subsequent offence. The court which convicts the offender may order any article the subject of the offence to be forfeited and destroyed or otherwise disposed of.

4. (1) If he has reason to suspect that adulterated leather is being manufactured or kept for the purpose of sale in any premises, the Minister of Mines and Industries, or any Minister acting for him, may at any time authorise any person to enter upon such premises and examine any place, receptacle or package found thereon.
- (2) The person so authorised and entering upon any premises as aforesaid may purchase at a reasonable price a sample, for the purpose of analysis, of any leather found therein. The purchased sample shall be dealt with as is provided in section six.
- (3) If the occupier of the premises or the owner of the leather refuses, either by himself or his agent or servant, to sell a sample as provided in this section, the person authorised as aforesaid may thereupon take or seize such sample. The sample so taken or seized shall be dealt with as is provided in section six.
5. (1) Any officer of the Department of Customs may take from any leather imported or intended for import into the Union a sample for analysis. The importer of such leather may, on depositing the sum of three pounds, demand that another sample for analysis shall be taken therefrom, and thereupon such sample, which may consist of one or more portions, shall be taken by an officer of the Department of Customs in the presence of the importer or his agent, if the importer so desires.
- (2) Any sample taken on the demand of the importer under sub-section (1) of this section shall be divided into two portions (not necessarily of like weight, shape or size) in the presence of the importer or his agent, if the importer so desires, and each of the two portions shall be fastened up, sealed and marked in such manner as its nature may permit. One of the sealed portions shall be handed to the importer or his agent, and the other shall be submitted by the officer of the Department of Customs for analysis.
- (3) If the analysis of the sample taken on the demand of the importer shows that the leather is adulterated the aforesaid deposit shall be forfeited, but if the analysis of the sample taken on the demand of the importer shows that the leather is not adulterated the deposit shall be returned to the importer.
6. Whenever a person authorised under section four of this Act purchases, takes or seizes a sample of leather he shall notify to the seller, or the occupier of the premises, or the owner of the leather or his agent, his intention to submit the sample for analysis. The said person shall then offer to divide the sample into two portions. If such offer is accepted the said person shall then, in the presence of the seller, or the occupier of the premises, or the owner of the leather or his agent, divide the sample into two portions, not necessarily of like weight, shape or size, and shall fasten up, seal and mark each portion in such manner as its nature may permit. He shall then hand one sealed portion to the seller, or the occupier of the premises, or the owner of the leather or his agent. If the offer to divide the sample purchased taken or seized is not accepted the said person shall fasten up, seal and mark in such manner as its nature may permit the whole of the sample purchased, taken or seized.
- The said person shall, with all convenient speed, send, or cause to be sent, to the analyst one of the divided portions of the sample or the whole sample, as the case may be.
7. On receipt of any sample of leather the analyst shall, with all convenient speed, carry out the analysis and furnish a report as provided in section eight. If the analyst reports that the sample of leather is adulterated he shall fasten up, seal and mark, with a distinctive and identifying mark the unused balance, if any, of the sample, and he shall retain this for a period of sixty days unless it is called for before the expiration of such period

by the Minister or by a court before which an action is pending of which the sample is the subject.

8. (1) The analysis of any sample of leather taken, purchased or seized in order to determine if such leather is adulterated shall be carried out by an analyst or chemist of the public service.
- (2) The analyst shall frame a report of the results of the analysis and the report shall contain such particulars as may be prescribed by regulations under this Act.
- (3) In any proceedings, against any person for a contravention of any provision of this Act the production of the report of the analyst on the analysis of the leather which is the subject of the alleged contravention, shall be prima facie evidence of the facts stated in the report unless the accused shall not less than three days before the hearing of the charge against him have required that the analyst be called as a witness. The accused shall bear the expenses incidental to the analyst being summoned and appearing as a witness, and before the analyst is summoned the accused shall deposit with the registrar or clerk of the court in which the proceedings are pending such sum as may be sufficient to meet the said expenses, which sum shall be returned to the accused if he is not convicted.
- (4) The accused, instead of requiring the attendance of the analyst as a witness, shall be entitled to put to him interrogatories approved by the court, and such interrogatories and the answers thereto shall be received in evidence in any proceedings.
9. Any person who obstructs or hinders any officer or person in the exercise of his powers or duties under this Act, whether by refusing access to or in the examination or inspection of premises or any part thereof or any package or receptacle therein, or by refusing to sell a sample of the article contained therein, or in any other manner whatever, shall be guilty of an offence and liable on conviction to a fine not exceeding fifty pounds.
10. No proceedings for a contravention of any of the provisions of this Act shall be begun after the expiry of sixty days from the date of the commission of the alleged offence or from the date of the purchase, taking or seizing of the sample for analysis.
11. The Governor-General may make regulations not inconsistent with this Act for the better carrying out of the objects and purposes of this Act. Such regulations may prescribe penalties for a contravention thereof or default in complying therewith not exceeding a fine of ten pounds.
12. This Act may be cited for all purposes as the Adulterated Leather Act, 1923, and shall commence and come into operation twelve months after the promulgation of the Act in the *Gazette*.

## APPENDIX II

### TARIFF REGULATIONS RELATING TO IMPORTATION OF HIDES, SKINS, AND LEATHER

Tariff No.	Duty.	Rebate upon Goods the Growth, Produce or Manufacture of the U.K. and Reciprocating British Colonies.
29. Leather, adulterated or loaded <sup>1</sup> , per lb. . . . . (or 20 per cent ad. val., whichever duty shall be the greater) . . . . . ad. val.	6d. —	— 3%
65. Harness and saddlery . . . . . ad. val.	25%	3 „
67. Leather manufactures, viz. leggings, bags, trunks, portmanteaux, holdalls, belts, and gun cases, made wholly or chiefly of leather, not including fancy handbags . . . . . ad. val.	25 „	3 „
112. Leather (as below) . . . . . ad. val.	3 „	Whole of duty rebated
(a) In the piece :		
(i) Patent and enamelled.		
(ii) Morocco and roan.		
(iii) Pigskin.		
(iv) Valve hide.		
(b) High-grade leather in the piece, viz. :		
(i) Black calf, being whole skins, when the measurement does not exceed 144 square feet per one dozen whole skins, and the measurement of no single skin exceeds 12½ square feet, and the free on board price is not less than 1s. 3d. per square foot.		
(ii) Coloured calf (other than black) being whole skins, when the measurement does not exceed 144 square feet per one dozen whole skins, and the measure-		

<sup>1</sup> Up to June, 1924, leather, other than roan, morocco, patent, enamelled and fancy leather and valve hide shall be deemed to be adulterated, weighted or loaded, if it contains :—

- (1) *When vegetable tanned :*
  - (a) Over 2 per cent mineral ash.
  - (b) Over 1 per cent glucose.
  - (c) Any barium or lead salt.
  - (d) Any magnesium sulphate.
- (2) *When mineral or combination tanned :*
  - (a) Over 1½ per cent mineral ash other than tanning agent.
  - (b) Any glucose.
  - (c) Any barium or lead salt.
  - (d) Any magnesium sulphate.

Subsequently to June, 1924, the terms of the Adulterated Leather Act will be in operation (see Appendix G 1).

## LEATHER, HIDES, AND SKINS

ment of no single skin exceeds  $12\frac{1}{2}$  square feet, and the free on board price is not less than 1s. 6d. per square foot.

- (iii) Black glacé kid, when the measurement does not exceed 72 square feet per one dozen whole skins, and the measurement of no single skin exceeds  $6\frac{1}{2}$  square feet, and the free on board price is not less than 1s. 3d. per square foot.
- (iv) Coloured glacé kid (other than black), when the measurement does not exceed 72 square feet per one dozen whole skins, and the measurement of no single skin exceeds  $6\frac{1}{2}$  square feet, and the free on board price is not less than 1s. 6d. per square foot.
- (v) Suède, velour and velvet finish leathers (not including those made from splits, or goat- or sheepskins, and not including leather known as chamois), when the measurement does not exceed 120 square feet per one dozen sides, and the measurement of no single side exceeds  $10\frac{1}{2}$  square feet, and the free on board price is not less than 1s. 6d. per square foot. Provided that no leather shall be entered for payment of duty under items (b) (i), (ii), (iii), (iv) and (v), that is not full or straight chrome tanned.

Tariff No.		Duty.	Rebate upon Goods the Growth, Produce or Manufacture of the U.K. and Reciprocating British Colonies.	
128.	Saddlery and harness furniture . . . . . ad. val.	3 <sup>0</sup> / <sub>0</sub>	Whole of duty rebated	
193.	All other hides and skins and leather . . . . . ad. val.	20 „	3 <sup>0</sup> / <sub>0</sub>	
82.	Bookbinders' requisites of leather and parch- ment . . . . . ad. val.	3 „	Whole of duty rebated	
102.	Glue, in bulk . . . . . ad. val.	3 „	„	
122.	Potassium and sodium bi-chromate . . . . . ad. val.	3 „	„	
167.	Substances for preparing or bating hides, and substances for tanning and finishing leather, including alum and hyposulphide, under such conditions and regulations as the Commissioner of Customs may prescribe . . . . .	Free	—	
	Boots and shoes of all kinds . . . . . ad. val.	30 <sup>0</sup> / <sub>0</sub>	3 <sup>0</sup> / <sub>0</sub>	
	(This rate to be continued until 1928, and should then be reduced by 2 $\frac{1}{2}$ per cent per annum until 17 $\frac{1}{2}$ per cent is reached, which will be permanent level of duty.)			

## BIBLIOGRAPHY

## OFFICIAL PUBLICATIONS

- OFFICIAL YEAR BOOK OF THE UNION OF SOUTH AFRICA.  
 STATISTICAL ABSTRACT. Half-yearly.  
 REPORT OF CENSUS OF FACTORIES AND MANUFACTURING INDUSTRIES.  
 REPORT OF AGRICULTURE CENSUS.  
 TRADE AND SHIPPING OF THE UNION. Monthly.  
 TRADE AND SHIPPING OF THE UNION. Annually.  
 SOUTH AFRICAN JOURNAL OF INDUSTRIES.  
 AGRICULTURE JOURNAL OF SOUTH AFRICA.  
 REPORTS OF HIS MAJESTY'S TRADE COMMISSIONERS IN SOUTH AFRICA.  
 REPORTS AND JOURNALS OF THE CHAMBER OF COMMERCE.  
 INDUSTRIAL SOUTH AFRICA. Monthly.  
 SOUTH AFRICAN DAIRYMAN AND LIVE STOCK JOURNAL.  
 INDUSTRIALIST.  
 INDUSTRIES.  
 NATIONAL BANK OF SOUTH AFRICA MONTHLY TRADE REPORT.  
 STANDARD BANK OF SOUTH AFRICA MONTHLY REVIEW.  
 BULLETIN OF IMPERIAL INSTITUTE.  
 BULLETIN No. 2 of the Industries Bulletin Series of the South African Journal of Industries.  
     Hides, Skins, and Leather Manufacture in South Africa. E. R. Swale.  
 BULLETIN No. 15 of the Industries Bulletin Series of the South African Journal of Industries.  
     South African Tanning and Dyeing Materials. C. Williams, B.Sc. A.R.C.S.

## PUBLICATIONS

- J. H. MAIDEN. Wattles and Wattle Bark. Third Edition, 1906.  
 BRITISH EAST AFRICA PROTECTORATE. The Wattle Industry Ordinance. No. XIV of 1912.  
 J. GORDON PARKER, Ph.D., F.I.C. The Mimosa Industry of South Africa. *Tanners' Year Book* for 1913.  
 SIR GEO. M. SUTTON. Wattle Bark : A Paying Industry. Second Edition, 1892.  
 T. R. SIM. The Black Wattle Industry. Paper read before the South African Assoc. for Adv. of Science in Pietermaritzburg, July, 1916.  
 C. WILLIAMS. The Composition of Natal Wattle Bark. First and Second Articles. Published by the Union Department of Agriculture, 1914 and 1915.  
 P. A. VAN DER BYL. A Study on a " Mottled " Disease of the Black Wattle. *Science Bulletin* No. 4 of the Union Department of Agriculture, 1914.  
 PROF. PAESSLER. In *Collegium*, 1911. p. 76 *et seq.*  
 F. T. EDWARDS. The Use of Mimosa or Wattle Bark, in the *Leather World*. Nos. 202, 211, 246, and 250.

- LT.-COL. GEO. LEUCHARS. Distillation of Wattle Wood. In the *Natal Agricultural Journal*, Vol. X, 1907.
- L. E. TAYLOR. Wattle Growing for Bark. *Farmers' Bulletin* No. 10 of the Transvaal Department of Agriculture, 1910.
- T. R. SIM. Tree Planting in Natal. *Bulletin* No. 7 of the Natal Department of Agriculture, 1905.
- T. R. SIM. The Forest Flora of Cape Colony, 1907.
- BARON F. VON MUELLER. Select Extra-tropical Plants. Ninth Edition, 1895.
- BULLETIN OF THE IMPERIAL INSTITUTE. Vol. V. No. 4. Tanning Materials from India, the Colonies and other sources.
- A. G. PERKIN. Article on Natural Indigo in Thorpe's *Dictionary of Applied Chemistry*. Revised edition.

SECTION H  
OTHER EMPIRE COUNTRIES



## LIST OF TABLES IN SECTION H

TABLE NO.		PAGE
<i>Aden</i>		
H 1.	HIDES AND SKINS, NUMBER AND WEIGHT, IMPORTS . . . . .	333
H 2.	HIDES AND SKINS, NUMBER AND WEIGHT, EXPORTS . . . . .	333
H 3.	HIDES AND SKINS, IMPORTS FROM SPECIFIED AREAS . . . . .	334
H 4.	HIDES AND SKINS, EXPORTS BY VALUE TO EMPIRE AND FOREIGN COUNTRIES . . . . .	334
H 5.	TANNED HIDES AND SKINS, EXPORTS BY VALUE TO EMPIRE AND FOREIGN COUNTRIES . . . . .	335
H 6.	HIDES AND SKINS, IMPORTS BY VALUE FROM EMPIRE AND FOREIGN COUNTRIES . . . . .	335
H 7.	TANNED HIDES AND SKINS, IMPORTS BY VALUE FROM EMPIRE AND FOREIGN COUNTRIES . . . . .	335
H 8.	TANNED HIDES AND SKINS, IMPORTS . . . . .	335
H 9.	TANNED HIDES AND SKINS, EXPORTS . . . . .	336
H 10.	BOOTS AND SHOES, IMPORTS . . . . .	336
H 11.	BELTING, IMPORTS . . . . .	336
<i>Nigeria</i>		
H 12.	HIDES AND SKINS, EXPORTS, 1907-22 . . . . .	336
H 13.	TANNED HIDES AND SKINS, EXPORTS, 1907-22 . . . . .	337
H 14.	HIDES AND SKINS, BY CLASSES AND COUNTRIES, EXPORTS, 1922 . . . . .	337
H 15.	TANNED HIDES AND SKINS, BY COUNTRIES, EXPORTS, 1922 . . . . .	338
<i>Kenya and Uganda</i>		
H 16.	HIDES AND SKINS, IMPORTS, 1922 . . . . .	338
H 17.	HIDES AND SKINS, EXPORTS, 1922 . . . . .	339
H 18.	TANNING BARK, EXPORTS, 1922 . . . . .	340
<i>Tanganyika</i>		
H 19.	HIDES, EXPORTS . . . . .	340
H 20.	SHEEP- AND GOATSKINS, EXPORTS . . . . .	340
<i>British Malaya</i>		
H 21.	IMPORTS OF VARIOUS ARTICLES, 1921 AND 1922 . . . . .	341
H 22.	EXPORTS OF VARIOUS ARTICLES, 1921 AND 1922 . . . . .	341
H 23.	IMPORTS AND EXPORTS, MANGROVE BARK, 1922 . . . . .	341
H 24.	GAMBIER IN BALES, IMPORTS AND EXPORTS, 1922 . . . . .	342
H 25.	GAMBIER IN CUBES, IMPORTS AND EXPORTS, 1922 . . . . .	342
H 26.	RAW HIDES, IMPORTS AND EXPORTS, 1922 . . . . .	343
H 27.	GOAT SKINS, IMPORTS AND EXPORTS, 1922 . . . . .	343
H 28.	TANNED HIDES, IMPORTS AND EXPORTS, 1922 . . . . .	344

## SECTION H

### OTHER EMPIRE COUNTRIES

In this Section are given the statistics relating to hides, skins, etc., in parts of the Empire outside the large Dominions dealt with in previous sections. Some of these countries are of considerable importance as suppliers of raw material. Nigeria, in particular, has grown considerably in importance, while Kenya is, on a smaller scale, similar to South Africa inasmuch as she produces and exports hides, goatskins, sheepskins and wattle bark. The countries will be dealt with in the following order, the tables being collected at the end of the section:—

- |                      |                          |
|----------------------|--------------------------|
| 1. Aden.             | 8. Grenada.              |
| 2. Nigeria.          | 9. Barbados.             |
| 3. Kenya and Uganda. | 10. Bermudas.            |
| 4. Tanganyika.       | 11. Bahamas.             |
| 5. British Malaya.   | 12. Trinidad and Tobago. |
| 6. Ceylon.           | 13. Nyasaland.           |
| 7. Jamaica.          |                          |

#### ADEN

Aden is the centre and port of shipment of a very large trade in hides and skins. These hides and skins reach Aden both from Africa and Arabia—the Red Sea ports, Massowah, Somaliland, Djibouti, etc. Table H 3 shows that nearly 80 per cent of the hides and a rather smaller proportion of the skins came from the African side. In 1919-20 no fewer than 10,760,000 skins of value Rs.13,000,000 and 770,000 hides of value Rs.6,000,000, reached Aden for subsequent re-exportation to the tanning countries (see Table H 1). Table H 2, which gives particulars of the exports from Aden, indicates in more detail the nature of the hides and skins exported. Practically all the hides were cow-hides; but of the 12,000,000 skins exported (including an accumulation from previous years) 6,800,000 were described as goatskins, 2,800,000 as sheepskins, and 2,400,000 were not specifically described. Although the total numbers exported fell off in subsequent years, the proportion of the various types remained approximately the same.

A comparatively small proportion only of the hides and skins from Aden goes to Empire countries. Table H 4 shows that, by value, less than 25 per cent in 1919-20 went to Empire countries, but in subsequent years the proportion was smaller. A smaller proportion still of the hides and skins handled at Aden actually came from Empire countries—13 per cent in 1919-20 (Table H 6). Thus Aden is an Empire centre used for the handling and transshipping of hides and skins (mainly) from foreign countries (mainly) to foreign countries.

Aden is also a centre for transshipment of a small quantity of rough tanned hides and skins (see Tables H 5, 7, 8, and 9), while there is also a small importation of boots and belting.

## NIGERIA

In comparatively recent years Nigeria has become an important source of supply of hides and goatskins. Before 1907 there was practically no exports of hides and skins, either in the raw or the tanned state. The progress since that date is indicated by the figures in Tables H 12 and 13. In 1907 the value of the export of hides and skins, tanned and untanned, was less than £13,000. In 1919 it was over £1,250,000, and even in 1922, when the post-War boom was over, the value was over £330,000.

The principal provinces for the supply of hides and skins are, in their order of importance, Kana, Bornu, Sokoto, Zaria, and Bauchi. The chief centre of the trade is at Kano, though it is said that the skins come from Sokoto and Katsena. Supplies also are very constant throughout both the wet and dry seasons. European firms are wholly dependent upon the African for supplies.

Nigerian goatskins produce kid of excellent grain, and the average size is good. A small trade is done in tanned skins, selections running, as a rule, 80 per cent goats and 20 per cent sheep. The skins are not fully tanned and require finishing off. Practically all the shipments of hides and skins are made from Lagos.

Full details of the exports in 1922 are given in the Tables H 14 and 15.

## RAW HIDES

Exports in 1922 were 3,815,000 lb. with an f.o.b. price of 8s. 9d., compared with 3,673,000 in 1921 with an f.o.b. price of 11s. 7d. The percentage of exports to the various countries was as follows :—

	1922 Per cent.	1921 Per cent.
United Kingdom . . . .	31	68
Germany . . . . .	29	32
United States . . . . .	17	—
France . . . . .	15	—
Holland . . . . .	7	—

## RAW GOATSKINS

Exports in 1922 were 2,752,000 lb. of f.o.b. value 14s. 8d. per lb., as compared with 1,129,825 of f.o.b. value 17s. 5d. per lb. in 1921. The percentage of exports to the various countries was as follows :—

	1922 Per cent.	1921 Per cent.
United Kingdom . . . .	74	57
United States . . . . .	17	32
France . . . . .	6	10
Belgium . . . . .	2	—
Germany . . . . .	1	—

## RAW SHEEPSKINS

Exports in 1922 were 96,000 lb. of f.o.b. value 8s. 5d. per lb., as compared with 27,000 lb. of value 14s. 9d. per lb. in 1921. The percentage of the exports to the various countries was :—

	1922 Per cent.	1921 Per cent.
United Kingdom . . . .	99.5	38
Germany . . . .	0.5	23
United States . . . .	—	39

## TANNED GOAT- AND SHEEPSKINS

Exports in 1922 were 231,000 lb. of f.o.b. value 17s. 8d. per lb., as compared with 135,000 lb. of f.o.b. value 21s. 6d. per lb. in 1921. The proportions to the various countries were as follows :—

	1922 Per cent.	1921 Per cent.
United Kingdom . . . .	71	86
Italy . . . .	13	9
Germany . . . .	8	—
United States . . . .	4	4
France . . . .	3	—

## TANNED HIDES

Exports in 1922 were 38,000 lb. of f.o.b. value 9s. 2d. per lb., as compared with 39,000 lb. of f.o.b. value 29s. 3d. per lb. in 1921. The exports were distributed as follows :—

	1922 Per cent.	1921 Per cent.
Gold Coast . . . .	50	40
Germany . . . .	45.	60

In 1919, at a period of high prices, a duty was placed upon the exportation of hides and skins. When the period of depression came this duty was very severely felt by the interests concerned, and the exports fell away to a considerable extent. In 1922 the export duty was reduced, and this fact accounted, at any rate partly, for the increased exports in that year. The export duties on hides and skins were reduced again on the 14th February, 1923, and now are :—

	Per lb.
Raw cattle hides . . . .	$\frac{1}{2}$ d.
„ sheepskins . . . .	$\frac{1}{2}$ d.
„ goatskins . . . .	1d.
Tanned cattle hides . . . .	$\frac{1}{2}$ d.
„ goat- or sheepskins . . . .	1d.

## KENYA AND UGANDA

Kenya and Uganda contribute hides, goatskins, sheepskins, and to a small extent, bark towards the raw materials of the leather industry. The total value of the export of hides and skins produced in the Colony in recent years has been as follows :—

12 months ending March 31st, 1919	£	150,000
" " " " " 1920	£	490,000
" " " " " 1921	£	152,000
9 " " " Dec. " 1921	£	65,000
12 " " " " " 1922	£	77,000

The separate figures for (a) dry and dry-salted hides, (b) sheep and goatskins, and (c) other skins were :—

	Dry and Dry-salted Cattle Hides.		Sheep- and Goat- skins.		Other Skins.	
	Cwt.	£	No.	£	No.	£
12 months ending March 31st, 1919	27,530	123,400	512,697	26,383	1,226	266
12 months ending March 31st, 1920	84,188	395,200	1,032,635	91,958	8,856	2,793
12 months ending March 31st, 1921	14,505	84,500	420,821	62,625	13,065	4,749
9 months ending December 31st, 1921	11,193	23,400	559,478	35,541	10,932	6,026
12 months ending December 31st, 1922	23,891	50,000	278,431	23,420	91,353	3,861

In 1922, 59 per cent of the hides were shipped to the United Kingdom, 27 per cent to Italy, and 8 per cent to France; 39 per cent of the goatskins went to the United States, 22 per cent to the United Kingdom, and 15 per cent to France.

The pre-War and post-War variation in export prices were as follows :—

	Hides.		Skins.	
	Average Value per cwt.	s. d.	Average Value per Skin.	s. d.
31st March, 1914, 12 months	93	6	0	11
" " 1919	89	7	1	0
" " 1920	93	11	1	9
" " 1921	116	7	3	0
" Dec. " 9	41	10	1	3
" " 1922, 12	41	11	1	8

A 10 per cent *ad valorem* duty, which had been imposed during the boom period, was removed in April, 1922.

These figures indicate the very low value of dry hides in the countries of origin in 1921 and 1922—less than one-half of pre-War prices. Owing to in-

creased freight and charges, the values in the countries of consumption in those years were more near to the pre-War values. The development of British settlements in Kenya and Uganda is naturally causing more attention to be given to the care of cattle, and, in particular, steps have been taken to improve the method of branding cattle.

Certain hides and skins are imported into Kenya from adjacent territories, chiefly Tanganyika and Italian East Africa, and particulars of these imports are shown in Table H 16.

Particulars of the exports for 1922, showing country of destination, are given in Table H 17 for (a) hides, (b) goat- and sheepskins, and (c) skins not specified. About 60 per cent of the hides come to Great Britain; but France, Italy, and Germany are also substantial consumers. The United States took about two-thirds of the skins exported in 1922, France and the United Kingdom taking the bulk of the remainder.

There is a considerable quantity of wattle bark in Kenya Colony, and the inherent quality of this bark is of a high order, and, in the view of some authorities, superior to that of South Africa. Considerable difficulties have been experienced, however, in properly harvesting this bark, and until these are overcome East African bark will not be able to obtain the price of that from South Africa. A good deal of badly harvested mildewed bark has been shipped, and at the present time consumers prefer the more reliable bark from South Africa. About 600 tons of East African bark were exported in 1922 (see Table H 18). In view of the probable shortage of bark in South Africa in the next few years, if the harvesting difficulties can be overcome, a substantial improvement in the export of bark from East Africa should be experienced.

During the boom period in wattle bark an extract plant was erected at Limuru, near Nairobi, but for obvious reasons this has had to close down. During the War a Wattle Growers' Association was formed in British East Africa, and over 12,000 acres in the Protectorate were specially planted with wattle. It was then estimated that the output of bark in the first few years following the year would be about 7,500 tons per year.

There is a small importation of leather and leather goods for consumption in the Colony, amounting to £18,273 in 1922, of which nearly half came from India and half from Great Britain. A tannery equipped with modern machinery exists at Tsavo, but no information of its output is available.

#### TANGANYIKA

Figures showing the exports of hides and skins are reproduced in Tables H 19, 20, and 21. These tables show that the domestic exports of hides in 1922 were 27,700 cwt., of value £53,400, while the skins exported in that year were 2,800 cwt., of value £13,800. The bulk of these went to Kenya for exportation, but a certain proportion was exported direct.

#### BRITISH MALAYA

British Malaya is of interest to those engaged in the leather industry on account of its connection with gambier. The value of the tanned hides shipped

from British Malaya is actually much greater than the value of the gambier shipped, but in some respects the latter material is unique. Gambier is an extract made from leaves of a shrub grown in small gardens scattered over the Malay States. It is obtained by boiling the leaves, and is done in small quantities in the gardens, though one factory for the purpose exists. It is subject to a good deal of adulteration, and has caused much difficulty to tanners using it since the War. The quality has distinctly deteriorated, and the percentage of tannin is about four less than before the War. The price, however, has remained very high, and is, per tanning unit, out of all proportion to that of the other tanning agents. One reason for this lies probably in the fact that it is used also for dyeing purposes.

The total quantity exported before the War was from 20,000 tons to 22,000 tons. In 1921 the figure was 7,000 tons, and in 1922 8,200 tons.

Particulars of the imports from neighbouring areas and the exports to all countries in 1922 are shown in Table H 25. Over 40 per cent was shipped direct to other parts of the Empire.

British Malaya is a large importer of hides (see Table H 26), but the exports are comparatively small. The imported hides come chiefly via India, Hong-Kong and Siam, and much of the resultant leather is exported as rough-tanned hides. In 1921 the value of this exceeded £700,000, and in 1922 over £400,000. Nearly all the exported leather goes to Hong-Kong, and particulars of the exports for 1922 are shown in Table H 28.

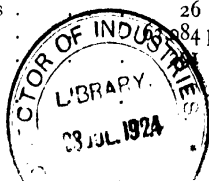
There is, in addition, some import and export trade in boots and shoes and leather goods, the values of which, in 1921 and 1922, are shown in Tables H 21 and 22.

#### CEYLON

According to the Returns of 1922, there were 487,000 buffaloes, 1,013,000 black cattle, 55,000 sheep, and 150,000 goats in Ceylon. There are three tanneries in the Colombo district, and in 1922 74 tons of bark and 75 tons of other tanning materials were imported, while 40 tons of tanning materials produced in the island were exported. The imports of hides (dry and dry-salted) were 686 cwt. of buffaloes and 131 cwt. of other sorts. The exports of hides (dry and dry-salted) were 10 cwt. of buffaloes and 7,187 cwt. of other sorts.

The imports of leather and leather manufactures were as follows :—

	Cwt.	Rs.
Rough-tanned . . . . .	181	45,000
Dressed hides . . . . .	58	16,000
„ skins . . . . .	101	24,000
Leather belting . . . . .	150	79,000
Saddlery and harness . . . . .	26	15,000
Boots and shoes . . . . .	284 pairs	546,000
Other sorts . . . . .	„	15,000
Total value		740,000



## OTHER EMPIRE COUNTRIES

329

The exports of leather produced in Ceylon were :—

	Cwt.	Rs.
Rough-tanned . . . . .	1,396	110,000
Dressed hides . . . . .	109	10,000
„ skins . . . . .	365	<u>31,500</u>
Total value . . . . .		151,500

## JAMAICA

Jamaica has a small tanning industry, and exports a little leather in addition to hides and logwood extract. The exports of cattle hides in 1921 were :—

	Hides.	£
United Kingdom . . . . .	2,250	1,603
Canada . . . . .	4,200	2,992
All Countries . . . . .	6,654	4,740

The exports of leather produced in Jamaica were :—

	lb.	£
United States . . . . .	1,868	240
Grenada . . . . .	1,088	98
Canada . . . . .	1,006	112
Dominica . . . . .	742	75
Cayman Island . . . . .	687	70
British Guiana . . . . .	502	69
Barbados . . . . .	547	49
Bahamas . . . . .	43	6
Total all Countries . . . . .	<u>6,483</u>	719

The exports of logwood extract amounted to 6,951 packages, of value £109,125, practically all coming to United Kingdom; 135 tons of divi-divi, of value £962, were exported to Germany.

The imports of hides were very small, but the imports of leather amounted to £2,051, of which £1,475 came from the United Kingdom, and £565 from the United States. The imports of leather manufactures were as follows :—

	From United Kingdom.	From United States.	From all Countries.
Boots (pairs) . . . . .	44,508	228,096	279,976
„ (value £) . . . . .	21,618	91,284	114,064
Saddlery and harness (value £) . . . . .	7,519	1,764	9,297
Other leather goods ( „ ) . . . . .	4,464	3,080	7,649
Total value of leather goods (value £) . . . . .	33,601	96,128	131,010



## LEATHER, HIDES, AND SKINS

## GRENADA

There is a small exportation of hides from Grenada. The figures for three years were :—

	Cwt.	£
1920 . . .	347	720
1921 . . .	169	326
1922 . . .	111	180

The whole of the hides exported in 1922 went to Trinidad. The imports of leather and leather goods in the same years were as follows :—

	1920	1921	1922
Boots (pairs) . . .	28,512	6,324	14,496
„ (value £) . . .	11,860	2,030	4,214
Undressed leather (lb.) . . .	15,515	4,052	4,752
„ „ (value £) . . .	2,391	444	487

In 1922 the United States provided 7,788 pairs of boots, of value £2,484, and Great Britain 4,056 pairs, of value £1,402. The leather imported came mainly from Jamaica and Trinidad.

## BARBADOS

In 1922 Barbados imported leather and leather goods to the total value of £41,570, distributed as follows :—

	From Great Britain. £	From all Countries. £
Undressed leather . . . . .	757	1,558
Dressed „ . . . . .	799	1,239
Boots and shoes . . . . .	22,928	35,377 <sup>1</sup>
Saddlery and harness . . . . .	873	1,121
Other leather manufactures . . . . .	1,565	2,275

<sup>1</sup> Of which £7,458 was from the United States.

## BERMUDAS

In 1920 Bermudas exported hides to the value of £210 (all to Canada), and imported the following leather and leather goods :—

	From United States. £	From all Countries. £
Leather . . . . .	3,549	4,743
Boots . . . . .	37,977	40,541

## BAHAMAS

In 1921 Bahamas exported hides to the value of £430 (all to the United States), and imported £14,670 of boots, of which £13,860 came from the United States and £810 from Great Britain.

# OTHER EMPIRE COUNTRIES

331

## TRINIDAD AND TOBAGO

Trinidad and Tobago have three tanneries, an abattoir, and a dyeworks. In 1920-22 hides and skins were imported as follows :—

	1920	1921	1922
Hides (No.) . . .	13,789	11,897	10,288
Skins „ . . .	2,462	1,837	
Hides (value £) . . .	21,616	7,567	7,371
Skins „ . . .	6,627	170	

In 1922 8,405 of the hides and skins, of value £6,598, came from Venezuela. The imports of boots and shoes were as follows :—

	1920	1921	1922
Pairs . . .	358,244	134,940	277,596
„ (value £) . . .	127,038	58,345	85,455

Of the imports in 1922 133,344 pairs, of value £47,765, came from Great Britain, and 78,456 pairs, of value £23,315, came from the United States.

In addition, leather and leather manufactures other than boots were imported of the following values :—

	£
1920 . . . . .	36,630
1921 . . . . .	14,675
1922 . . . . .	9,387

Of the imports in the last-named year, £3,175 came from Great Britain and £4,200 from the United States.

The exports from Trinidad and Tobago comprised the following :—

	1920	1921	1922
Hides and skins (No.) . . .	6,176	12,298	7,921
„ „ (value £) . . .	11,723	16,449	13,060
Divi-divi (lb.) . . .	—	—	135,000
„ (value £) . . .	—	—	843
Leather („ „) . . .	2,881	831	944
Boots (pairs) . . .	28,548	13,500	27,036
„ (value £) . . .	3,994	1,546	2,358

The chief destinations of the hides and skins exported in 1922 were as follows :—

	No.	
Great Britain . . . . .	3,219	5,628
France . . . . .	2,450	5,061
United States . . . . .	1,397	2,716

## LEATHER, HIDES, AND SKINS

The divi-divi went entirely to Germany, and the leather to British Guiana and the West Indies. The latter country took more than half of the boots exported.

## NYASALAND

Nyasaland in 1922 possessed 101,000 cattle, 58,000 sheep, and 174,000 goats. Her exports of hides and skins have been as follows :—

	1920	1921	1922
Weight (lb.) . . .	22,910	8,085	3,587
Value £ . . .	657	117	171

Imports of leather and boots in the same year were as follows :—

	1920	1921	1922
Leather (cwt.) . . .	31	33	58
„ (value £) . . .	536	692	633
Boots (pairs) . . .	30,504	42,252	27,696
„ (value £) . . .	3,143	3,715	869

## OTHER EMPIRE COUNTRIES

333

TABLE H 1

*Aden*

## TOTAL IMPORTS OF HIDES AND SKINS, RAW

	Quantity.			Value.		
	1919-20	1920-21	1921-22	1919-20 Rs.	1920-21 Rs.	1921-22 Rs.
Hides, raw—						
Cwt. . .	76,705	11,580	4,865	60,91,080	5,98,680	1,19,239
No. . .	767,053	115,792	48,637			
Skins, raw—						
Cwt. . .	111,552	42,051	65,248	1,32,81,300	49,25,430	50,61,731
No. . .	10,758,922	4,858,476	6,187,870			
Total hides and skins—						
Cwt. . .	188,257	53,631	70,113	1,93,72,380	55,24,110	51,80,970
No. . .	11,525,975	4,974,268	6,236,507			

TABLE H 2

*Aden*

## TOTAL EXPORTS OF HIDES AND SKINS, RAW

	Quantity.			Value.		
	1919-20	1920-21	1921-22	1919-20 Rs.	1920-21 Rs.	1921-22 Rs.
Cow-hides—						
Cwt. . .	80,390	9,663	6,121	77,99,025	8,43,975	2,26,285
No. . .	803,900	96,613	61,215			
Calfskins—						
Cwt. . .	122	—	24	2,445	—	300
No. . .	2,440	—	480			
Other sorts—						
Cwt. . .	2,193	1,007	6,267	44,985	27,510	2,23,414
No. . .	21,928	10,070	62,655			
Total hides, raw—						
Cwt. . .	82,705	10,670	12,412	78,46,455	8,71,485	4,50,028
No. . .	828,268	106,683	124,350			

## LEATHER, HIDES, AND SKINS

TABLE II 2 (contd.)	Quantity.			Value.		
	1919-20	1920-21	1921-22	1919-20 Rs.	1920-21 Rs.	1921-22 Rs.
<i>Skins, raw—</i>						
Goatskins—						
No. . . . .	85,399	16,383	45,885	1,70,85,060	28,74,165	48,17,926
Cwt. . . . .	6,831,674	1,310,577	3,670,629			
Sheepskins—						
Cwt. . . . .	34,660	15,195	19,375	62,59,300	26,06,415	27,75,151
No. . . . .	2,772,763	1,215,480	1,565,838			
Other sorts—						
Cwt. . . . .	7,417	5,689	4,099	6,58,545	6,14,370	3,91,817
No. . . . .	2,373,485	1,820,433	1,312,080			
Total skins, raw—						
Cwt. . . . .	127,476	37,267	69,559	2,40,02,910	60,94,950	79,84,894
No. . . . .	11,977,902	4,346,490	6,548,547			
Total hides and skins (excluding cuttings of hides and skins, raw)—						
Cwt. . . . .	210,181	47,937	81,971	3,18,49,365	69,66,435	84,34,922
No. . . . .	12,806,190	4,453,173	6,672,897			

TABLE II 3

Aden

## IMPORTS OF HIDES AND SKINS (RAW), 1920-21 AND 1921-22

Place of origin	1920-21		1921-22	
	Cwt.	Rs.	Cwt.	Rs.
Hides : Africa . . . . .	8,658	4,86,375	3,778	95,441
Arabia . . . . .	2,877	1,10,940	1,026	22,560
All . . . . .	11,580	5,98,680	4,865	1,19,239
Skins : Africa . . . . .	31,725	40,58,805	43,934	38,48,315
Arabia . . . . .	10,236	8,58,300	21,155	12,00,889
All . . . . .	42,051	29,25,430	65,248	50,61,730

The hides come from Djibouti, Red Sea ports, and Massowah.

The skins come from Djibouti, Red Sea ports, and Somaliland.

TABLE II 4

Aden

## EXPORTS OF RAW HIDES AND SKINS, 1919-20 TO 1921-22

	1919-20 Rs.	1920-21 Rs.	1921-22 Rs.
To Empire Countries . . . . .	85,91,565	34,01,265	24,69,447
„ Foreign „ . . . . .	2,32,57,860	35,65,770	59,67,265
Total . . . . .	3,18,49,425	69,67,035	84,36,712

# OTHER EMPIRE COUNTRIES

335

TABLE H 5

Aden

## EXPORTS OF HIDES AND SKINS, TANNED OR DRESSED, AND LEATHER

	1919-20 Rs.	1920-21 Rs.	1921-22 Rs.
To Empire Countries . . .	375	3,675	5,350
„ Foreign „ . . .	46,530	38,355	17,744
Total . . .	46,905	42,030	23,094

TABLE H 6

Aden

## IMPORTS OF RAW HIDES AND SKINS, 1919-20 TO 1921-22

	1919-20 Rs.	1920-21 Rs.	1921-22 Rs.
From Empire Countries . . .	25,85,655	12,27,480	13,11,529
„ Foreign „ . . .	1,67,86,725	42,96,630	38,69,441
Total . . .	1,93,72,380	55,24,110	51,80,970

TABLE H 7

Aden

## IMPORTS OF HIDES AND SKINS, TANNED OR DRESSED, AND LEATHER

	1919-20 Rs.	1920-21 Rs.	1921-22 Rs.
From Empire Countries . . .	61,095	31,485	43,793
„ Foreign „ . . .	43,725	18,390	14,836
Total . . .	1,04,820	49,875	58,629

TABLE H 8

Aden

## TOTAL IMPORTS OF TANNED HIDES AND SKINS AND LEATHER

	Quantity. 1919-20	1920-21	1921-22	Value. 1919-20 Rs.	1920-21 Rs.	1921-22 Rs.
Hides, tanned or dressed (cwt.)	453	281	626	25,350	14,595	26,319
„ „ (No.)	4,519	2,810	6,258			
Skins (cwt.) . . .	305	214	130			
„ (No.) . . .	45,947	17,047	10,430	43,560	19,110	14,340
Unwrought (cwt.) . . .	10	—	—	—	15	—
Leather cloth . . .	—	—	—	—	—	180
Manufactures (excluding boots and shoes and belting for machinery)—	—	—	—	—	—	—
Bags and trunks . . .	—	—	—	13,050	6,210	10,112
Saddlery and harness . . .	—	—	—	9,420	5,805	2,535
Other sorts . . .	—	—	—	13,005	4,140	5,143
Total leather, value . . .	—	—	—	1,04,820	49,875	58,629

## LEATHER, HIDES, AND SKINS

TABLE H 9

*Aden*

## TOTAL EXPORTS OF HIDES AND SKINS, TANNED OR DRESSED

	1919-20	1920-21	1921-22	1919-20 Rs.	1920-21 Rs.	1921-22 Rs.
Cwt.	52	195	14			
No.	16,489	15,654	10,928	32,985	28,020	13,435

TABLE H 10

*Aden*

## IMPORTS OF BOOTS AND SHOES \*

	1919-20 Pairs.	1920-21 Pairs.	1921-22 Pairs.	1919-20 Rs.	1920-21 Rs.	1921-22 Rs.
Leather	15,801	11,431	9,637	70,095	53,730	24,893
Other materials	6,895	9,825	6,740	21,525	19,440	12,990
Total	22,696	21,256	16,377	91,620	73,170	37,883

TABLE H 11

*Aden*

## IMPORTS OF BELTING FOR MACHINERY

	1919-20	1920-21	1921-22
Leather	1,950	8,880	1,613
Cotton	1,110	120	1,442
Other materials	195	735	2,820
Total	3,255	9,735	5,875

TABLE H 12

*Nigeria*

## EXPORTS OF UNTANNED HIDES AND SKINS, 1907-22

Year.	United Kingdom.		Germany.		Other Countries.		Total.	
	No.	£	No.	£	No.	£	No.	£
1907	6,395	773	5,651	2,200	1,324	389	13,370	3,362
1913	285,525	81,907	188,046	84,485	74	22	473,645	166,414
1919	2,048,189	530,286	—	—	2,788,019	586,608	4,836,208	1,116,894
1920	1,790,146	565,335	—	—	459,323	101,482	2,249,469	666,817
1921	755,235	149,877	94,356	64,682	381,668	48,285	1,231,259	262,844
1922	1,979,198	178,368	110,005	43,116	719,332	94,549	2,808,535	316,033

# OTHER EMPIRE COUNTRIES

337

TABLE H 13

## Nigeria

### EXPORTS OF TANNED HIDES AND SKINS, 1907-22

Year.	United Kingdom.		Germany.		Other Countries.		Total.	
	No.	£	No.	£	No.	£	No.	£
1907	199,745	9,213	14	2	1,744	35	201,523	9,575
1913	652,288	30,633	1,360	104	880	63	654,528	30,800
1919	1,005,787	130,635	—	—	117,106	14,611	1,122,893	145,246
1920	438,727	101,188	—	—	24,268	6,720	462,995	107,908
1921	99,716	11,010	2,800	4,059	15,195	1,817	117,711	16,886
1922	159,099	12,950	20,379	1,467	34,111	4,168	213,589	18,585

TABLE II 14

## Nigeria

### EXPORTS OF HIDES AND SKINS BY CLASSES AND COUNTRIES, 1922

	United Kingdom.	United States.	Germany.	France.	Holland.	Belgium.	Total.
Cattle hides up to 11 lb.—							
lb. . . . .	114,000	—	165,000	436,000	—	—	715,000
£ . . . . .	4,008	—	6,883	12,711	—	—	23,602
No. . . . .	—	—	—	—	—	—	82,545
Cattle hides, 11-14 lb.—							
lb. . . . .	265,000	147,000	266,000	148,000	—	—	826,000
£ . . . . .	9,737	3,857	9,918	1,300	—	—	24,812
No. . . . .	—	—	—	—	—	—	64,917
Cattle hides, 14-18 lb.—							
lb. . . . .	667,000	509,000	352,000	—	264,000	—	1,792,000
£ . . . . .	35,479	13,220	14,466	—	11,020	—	74,185
No. . . . .	—	—	—	—	—	—	117,221
Cattle hides over 18 lb.—							
lb. . . . .	154,000	7,091	321,687	—	—	—	482,778
£ . . . . .	9,669	81	9,748	—	—	—	19,498
No. . . . .	—	—	—	—	—	—	24,073
Goatskins—							
lb. . . . .	2,048,000	461,000	35,000	155,000	—	53,000	2,752,000
£ . . . . .	115,742	37,241	2,048	9,834	—	5,266	170,131
No. . . . .	—	—	—	—	—	—	2,436,704
Sheepskins—							
lb. . . . .	96,000	—	450	—	—	—	96,450
£ . . . . .	3,399	—	19	—	—	—	3,418
No. . . . .	—	—	—	—	—	—	82,277



TABLE H 15

*Nigeria*

## EXPORTS OF TANNED HIDES AND SKINS BY COUNTRIES, 1922

	Tanned Hides.		Tanned Goat- and Sheepskins.	
	(No. 3633) lb.	£	(No. 209946) lb.	£
United Kingdom . . . . .	700	44	163,000	12,905
Germany . . . . .	16,800	700	18,300	767
Gold Coast . . . . .	19,000	648	1,400	103
Sierra Leone . . . . .	100	8	3,000	289
Togoland . . . . .	100	2	—	—
French Possessions . . . . .	100	4	—	6
Belgian Possessions . . . . .	300	9	—	—
United States . . . . .	800	38	8,000	507
France . . . . .	—	—	6,700	403
Italy . . . . .	—	—	29,500	2,151
Total . . . . .	37,900	4,453	229,900	17,131

TABLE II 16

*Kenya and Uganda*

## IMPORTS OF HIDES AND SKINS, 1922

	Quantities.		Value. £
	Cwt.	No.	
Hides, dry and dry-salted—			
Tanganyika Territory . . . . .	4,555		9,497
Belgian Congo . . . . .	66		53
Total . . . . .	4,621		9,550
Skins, sheep and goat—		No.	£
Tanganyika Territory . . . . .	62,496		5,815
Italian East Africa . . . . .	224		22
Total . . . . .	62,720		5,837
Skins, other animals—		No.	£
Tanganyika Territory . . . . .	896		45
Belgian Congo . . . . .	3,136		15
Italian East Africa . . . . .	16,576		610
Total . . . . .	20,608		670

## OTHER EMPIRE COUNTRIES

339

TABLE H 17  
*Kenya and Uganda*

## EXPORTS OF HIDES AND SKINS, 1922

	Domestic Produce. Cwt.	Produce other than Domestic. Cwt.	Total. Cwt.	Domestic Produce. £	Produce other than Domestic. £	Total. £
Hides, dry and dry-salted—						
United Kingdom . . . . .	14,115	16,663	30,778	28,864	34,746	63,610
India . . . . .	525	749	1,274	1,116	1,639	2,755
Zanzibar . . . . .	225	28	253	461	116	577
Union of South Africa . . . . .	52	—	52	105	—	105
Belgium . . . . .	245	523	768	495	1,053	1,548
France . . . . .	1,865	3,741	5,606	3,888	7,600	11,578
Italy . . . . .	6,544	2,845	9,389	14,363	5,923	20,286
Germany . . . . .	315	3,873	4,188	749	7,900	8,649
Italian East Africa . . . . .	4	—	4	6	—	6
United States . . . . .	1	—	1	2	—	2
Total . . . . .	23,891	28,422	52,313	50,040	59,067	109,116
Skins, sheep and goat—						
United Kingdom . . . . .	60,928	16,426	77,354	3,798	1,353	5,151
India . . . . .	—	5,824	5,824	—	118	118
Zanzibar . . . . .	448	—	448	21	—	21
France . . . . .	41,290	54,955	96,245	3,374	5,425	8,799
Germany . . . . .	224	1,419	1,643	7	32	39
Italy . . . . .	11,125	8,736	19,861	631	654	1,285
Italian East Africa . . . . .	75	2,315	2,390	3	223	226
United States . . . . .	164,341	180,395	344,736	15,586	17,676	33,262
Total . . . . .	278,431	270,070	548,501	23,420	25,481	48,901
Skins, other animal—						
United Kingdom . . . . .	13,290	300	13,590	2,758	102	2,860
India and Burma . . . . .	3,136	—	3,136	655	2	657
Zanzibar . . . . .	30	—	30	17	—	17
Union of South Africa . . . . .	75	224	299	33	28	61
Australian Colonies . . . . .	5	—	5	2	—	2
Belgian Congo . . . . .	5	—	5	2	—	2
France . . . . .	1	150	151	1	21	22
Holland . . . . .	100	—	100	53	—	53
Italy . . . . .	20	524	544	15	80	93
Portuguese Possessions . . . . .	3	—	3	3	—	3
Spain . . . . .	2,240	—	2,240	250	—	250
United States . . . . .	448	—	448	72	—	72
Total . . . . .	19,353	1,198	20,551	3,861	233	4,092

TABLE H 18

*Kenya and Uganda*

## EXPORTS OF BARK FOR TANNING, 1922

	Quantity. (Cwt.)	Value. £
United Kingdom . . . . .	1,487	611
Germany . . . . .	5,495	1,736
Norway . . . . .	4,022	946
Spain . . . . .	600	165
Total . . . . .	11,514	3,458

TABLE H 19.

*Tanganyika*

## EXPORTS OF HIDES, DRY AND DRY SALTED

Countries of Consignment.	Domestic Exports.				Transit Exports.			
	Quantities.		Value.		Quantities.		Value.	
	1921 Cwt.	1922 Cwt.	1921 £	1922 £	1921 Cwt.	1922 Cwt.	1921 £	1922 £
United Kingdom . . . . .	1,504	3,572	3,965	4,845	595	—	765	—
Kenya and Uganda . . . . .	3,209	20,546	6,890	42,383	521	4,684	1,180	8,820
France . . . . .	1	1,949	2	3,879	—	58	—	110
Belgium . . . . .	—	831	—	1,107	2,496	18,720	8,659	33,996
Total to all Countries . . . . .	5,016	27,719	11,633	53,401	4,078	23,507	11,118	42,960

TABLE H 20

*Tanganyika*

## EXPORTS OF SHEEP- AND GOATSKINS

Countries of Consignment.	Domestic Exports.				Transit Exports.			
	Quantities.		Value.		Quantities.		Value.	
	1921 Cwt.	1922 Cwt.	1921 £	1922 £	1921 Cwt.	1922 Cwt.	1921 £	1922 £
Kenya and Uganda . . . . .	2,074	2,176	11,387	10,198	595	410	4,116	2,350
United States . . . . .	—	373	—	1,734	—	—	—	—
Belgium . . . . .	—	1	—	6	230	—	1,594	—
Total to all Countries . . . . .	2,121	2,653	11,620	12,402	829	491	5,740	2,470

# OTHER EMPIRE COUNTRIES

341

TABLE H 21

## British Malaya

IMPORTS, 1921 AND 1922

	1921		1922	
	Quantity. Piculs.	Value. \$(000)	Quantity. Piculs.	Value. \$(000)
Mangrove bark . . . . .	357,000	494	402,000	500
Gambier in bales . . . . .	15,700	118	13,200	117
„ in cubes . . . . .	16,600	278	28,900	448
Hides, raw . . . . .	58,500	2,769	53,000	1,633
Goatskins . . . . .	—	607	—	437
Hides, tanned . . . . .	1,668	102	1,191	67
Boots and shoes . . . . .	—	462	—	313
Leatherware . . . . .	—	432	—	487
Saddlery . . . . .	—	15	—	7

Picul=133 lb. \$=2s. 4d. (Government rate of exchange).

TABLE H 22

## British Malaya

EXPORTS, 1921 AND 1922

Article.	1921		1922	
	Quantity. Piculs.	Value. \$(000)	Quantity. Piculs.	Value. \$(000)
Mangrove bark . . . . .	229,000	653	253,000	613
Gambier in bales . . . . .	39,700	371	41,300	409
Gambier in cubes . . . . .	79,100	1,031	98,500	1,360
Hides, raw . . . . .	10,600	300	20,900	535
Goatskins . . . . .	—	542	—	314
Hides, tanned . . . . .	71,800	5,970	52,500	3,509
Boots and shoes . . . . .	—	184	—	151
Bags and trunks . . . . .	—	11	—	23
Leatherware . . . . .	—	257	—	126
Saddlery . . . . .	—	4	—	3

Picul=133 lbs. \$=2s. 4d. (Government rate of exchange).

TABLE H 23

## British Malaya

IMPORTS AND EXPORTS OF MANGROVE BARK, 1922

Country.	Imports.		Exports.	
	Quantity. Piculs.	Value. \$	Quantity. Piculs.	Value. \$
Hong-Kong . . . . .	—	—	139,623	326,376
China . . . . .	—	—	110,114	281,659
Borneo . . . . .	6,264	6,916	—	—
Sumatra . . . . .	273,648	359,675	—	—
Other Dutch Islands . . . . .	14,907	13,851	—	—
Siam and Siamese States . . . . .	105,121	114,981	60	48
Total, all Countries . . . . .	400,060	495,821	352,921	612,753

TABLE H 24

*British Malaya*

## IMPORTS AND EXPORTS OF GAMBIER IN BALES, 1922

	Imports.		Exports.	
	Quantity, Piculs.	Value, \$	Quantity, Piculs.	Value, \$
United Kingdom . . . . .	—	—	14,426	138,959
Belgium . . . . .	—	—	4,203	39,439
France . . . . .	—	—	3,716	39,357
Germany . . . . .	—	—	1,290	12,551
Dutch Islands . . . . .	12,628	111,565	—	—
United States . . . . .	—	—	16,398	166,444
Total, all Countries . . . . .	13,217	116,875	41,256	408,935

TABLE H 25

*British Malaya*

## IMPORTS AND EXPORTS OF GAMBIER IN CUBES, 1922

	Imports.		Exports.	
	Piculs.	\$	Piculs.	\$
United Kingdom . . . . .	—	—	11,147	127,551
British India and Burma . . . . .	66	1,800	30,999	447,399
Hong-Kong . . . . .	—	—	1,118	12,498
Australia . . . . .	—	—	544	8,967
Sumatra . . . . .	3,754	99,460	—	—
Sarawak . . . . .	62	664	—	—
United States . . . . .	801	7,200	25,820	315,542
France . . . . .	—	—	4,901	61,226
Germany . . . . .	—	—	4,306	60,826
Italy . . . . .	—	—	1,143	15,859
Spain . . . . .	—	—	845	8,176
China . . . . .	—	—	55,698	753,742
Japan . . . . .	—	—	1,017	13,877
Dutch Borneo . . . . .	1,247	15,349	—	—
Other Dutch Islands . . . . .	22,915	323,241	—	—
Siam and Siamese States . . . . .	3	63	—	—
Total . . . . .	38,848	447,777	137,538	1,825,663

TABLE H 26

*British Malaya*

## IMPORTS AND EXPORTS OF RAW HIDES, 1922

Country.	Imports.		Exports	
	Quantity. Piculs.	Value. \$	Quantity. Piculs.	Value. \$
United Kingdom . . . . .	—	—	9,812	221,125
British India and Burma . . . . .	12,589	325,640	42	1,461
Hong-Kong . . . . .	15,996	713,070	626	15,805
Egypt . . . . .	—	—	2,471	62,211
France . . . . .	—	—	2,598	73,728
Netherlands . . . . .	—	—	433	12,128
Spain . . . . .	—	—	1,456	53,500
French Indo-China . . . . .	1,435	49,428	—	—
Bali and Lombok . . . . .	886	36,667	—	—
Borneo . . . . .	1,090	25,043	—	—
Celebes and Moluccas . . . . .	1,208	51,016	7	225
Java . . . . .	1,016	43,731	—	—
Siam and Siamese States . . . . .	16,598	338,176	—	—
United States . . . . .	—	—	1,685	49,585
Other Foreign Countries . . . . .	—	—	1,479	37,345
Total, all Countries . . . . .	52,990	1,632,577	20,917	534,611

TABLE H 27

*British Malaya*

## IMPORTS AND EXPORTS OF RAW GOATSKINS, 1922

	Imports. Value. \$	Exports. Value. \$
British India and Burma . . . . .	431,330	23,922
Hong-Kong . . . . .	—	165,935
Java . . . . .	492	28,705
Sumatra . . . . .	—	11,428
Siam and Siamese States . . . . .	—	57,075
Total, all Countries . . . . .	436,913	113,018

TABLE H 28

*British Malaya*

## IMPORTS AND EXPORTS OF TANNED HIDES, 1922

	Imports.		Exports.	
	Quantity, Piculs.	Value. \$	Quantity, Piculs.	Value. \$
British India and Burma . . . . .	858	48,950	—	—
Hong-Kong . . . . .	22	1,350	50,161	3,348,869
China . . . . .	—	—	641	39,147
Borneo . . . . .	—	—	277	21,554
Celebes and Moluccas . . . . .	—	—	611	45,024
Java . . . . .	146	7,900	56	3,515
Sumatra . . . . .	127	6,785	291	19,141
Other Dutch Islands . . . . .	—	—	161	12,907
Total, all Countries . . . . .	1,190	67,163	52,457	3,509,188

## BIBLIOGRAPHY

- REPORT ON TRADE AND NAVIGATION OF ADEN. 1921-22.  
 ANNUAL TRADE REPORT OF KENYA AND UGANDA. 1922.  
 ANNUAL REPORT OF CUSTOMS DEPARTMENT, NIGERIA. 1922.  
 TRADE REPORT FOR 1922 OF TANGANYIKA.  
 BRITISH MALAYA. REPORT OF IMPORTS AND EXPORTS. 1922.  
 CEYLON BLUE BOOK. 1922.  
 JAMAICA BLUE BOOK. 1921.  
 GRENADA BLUE BOOK. 1922.  
 BARBADOS BLUE BOOK. 1922.  
 BERMUDA BLUE BOOK. 1920.  
 BAHAMAS BLUE BOOK. 1921.  
 TRINIDAD AND TOBAGO. REPORT OF COLLECTOR OF CUSTOMS. 1922.  
 NYASALAND BLUE BOOK. 1922.



## APPENDIX

### STATISTICS OF THE EMPIRE'S PRODUCTION OF FUR SKINS

	PAGE		PAGE
Canada . . . . .	345-347	South Africa . . . . .	348
Australia . . . . .	347	Newfoundland . . . . .	348
New Zealand . . . . .	348	Great Britain . . . . .	349-350

#### (A) *Canada*

THE most important producer of fur skins among Empire Countries is Canada. The recent information available for that country is contained in (a) Report on the Fur Farms of Canada, 1922, and (b) Fur Production of Canada, Season 1921-22, both publications being issued from the Dominions Bureau of Statistics.

In 1922 there were 1,026 fur farms in the Dominion, of which 977 were fox farms. The value of fur-bearing animals was returned as \$5,864,000, half of which was in Prince Edward Island. Statistics of the various kinds of furs for 1922 can be summarised as follows:—

	December 31st, 1922 No. of Fur- bearing Animals.	Total value of Fur-bearing Animals. \$(000)	1922 Born.	1922 Died.	Killed for Pelts.
Silver foxes . . . . .	22,318	5,663	16,604	3,033	6,894
Patch or cross foxes . . . . .	1,384	103	1,017	295	539
Red foxes . . . . .	435	9	495	172	423
Blue „ . . . . .	10	2	—	—	—
White „ . . . . .	16	1	—	—	—
Mink . . . . .	288	6	248	41	114
Raccoon . . . . .	105	1	45	15	9
Skunk . . . . .	34	1	219	66	220
Marten . . . . .	3	—	—	—	—
Fisher . . . . .	7	1	3	3	—
Opossum . . . . .	—	—	—	—	—
Lynx . . . . .	3	—	—	—	—
Karakul sheep . . . . .	941	68	376	1	30
Brown beaver . . . . .	81	2	42	—	42
Musk-rat . . . . .	5,157	7	150	—	5
Bear . . . . .	—	—	—	—	2
	30,782	5,864	19,199	3,626	8,278



## LEATHER, HIDES, AND SKINS

The total number and value of pelts of various kinds taken from fur-bearing animals in the season 1921-22 (including pelts of animals taken by trappers and pelts of ranch-bred animals) was as follows :—

Kind.	No. of Pelts.	Total Value of Pelts. \$	Average Value per Pelts \$
Badger . . . . .	1,777	1,844	1.04
Bear, black . . . . .	8,432	90,171	10.81
„ brown . . . . .	738	6,769	9.17
„ grizzly . . . . .	115	1,882	16.36
„ white . . . . .	378	6,918	18.30
„ unspecified . . . . .	341	4,092	12.00
Beaver . . . . .	232,134	4,266,767	18.38
Coyote . . . . .	30,551	277,338	9.07
Ermine (weasel) . . . . .	450,372	248,409	.52
Fisher or pekan . . . . .	5,689	424,688	74.45
Fox, cross . . . . .	5,759	289,651	50.30
„ red . . . . .	38,024	473,978	12.46
„ silver . . . . .	4,979	734,002	147.42
„ blue . . . . .	155	10,978	70.82
„ white . . . . .	40,927	1,625,017	39.70
„ other . . . . .	214	1,311	6.12
Lynx . . . . .	11,673	237,925	20.38
Marten or sable . . . . .	58,989	1,216,229	20.52
Mink . . . . .	205,324	1,848,856	9.00
Musk-rat . . . . .	3,060,526	4,707,043	1.54
Otter . . . . .	13,689	373,153	27.26
Rabbit . . . . .	1,334	200	.15
Raccoon . . . . .	35,229	129,742	3.71
Skunk . . . . .	133,342	312,130	2.35
Squirrel, black . . . . .	15	19	1.27
„ grey . . . . .	64	11	.17
„ red . . . . .	79	6	.07
Wild cat . . . . .	3,583	14,922	4.16
Wolf . . . . .	9,451	96,146	10.17
Wolverine or carcajou . . . . .	1,143	20,059	17.54
Caribou . . . . .	4	8	2.00
Deer . . . . .	9,363	12,947	1.38
Elk . . . . .	8	20	2.50
Moose . . . . .	1,838	5,249	2.85
Panther . . . . .	40	195	4.87
House cat . . . . .	400	100	.25
Civet „ . . . . .	111	32	.28
	<hr/> 4,366,790	<hr/> 17,438,867	

## OTHER EMPIRE COUNTRIES

347

The export trade in furs is almost entirely with the United States and the United Kingdom, the summary figures for the fiscal years 1913 and 1921 being :—

	Value \$(000)					
	United States.	1913 United Kingdom.	All Countries.	United States.	1921 United Kingdom.	All Countries.
Furs, undressed . . . . .	2,184	2,629	5,151	7,933	3,509	11,731
„ dressed . . . . .	11	2	15	39	21	168
Manufactures of furs . . . . .	35	25	70	36	146	331
Total . . . . .	2,230	2,656	5,236	8,008	3,676	12,230

For 1921 the details of the individual varieties of undressed skins exported were as follows :—

	United States.		United Kingdom.		All Countries.	
	No.	Value. \$(000)	No.	Value. \$(000)	No.	Value. \$(000)
Sealskins . . . . .	1,622	8	74	3	1,715	11
Musk-rat . . . . .	860,442	1,631	390,748	738	1,253,553	2,380
Beaver . . . . .	106,684	2,137	42,103	1,002	150,190	3,186
Black and silver fox . . . . .	3,600	649	546	143	4,471	888
Other fox skins . . . . .	20,106	434	8,937	342	30,621	845
Marten . . . . .	28,403	839	14,361	446	42,987	1,296
Mink . . . . .	71,673	760	25,406	282	97,125	1,072
Other skins . . . . .	—	1,472	—	536	—	2,060

### (B) *Australia*

Australia is a very large producer of rabbit-skins, the principal statistics being as follows :—

#### EXPORTS OF RABBIT- AND HARESkins

	Quantity (lbs.)		Value (£)	
	1913	1921-22	1913	1921-22
United Kingdom . . . . .	6,813,602	3,198,888	417,649	257,725
Total Empire Countries . . . . .	6,813,602	3,201,380	417,649	258,141
United States . . . . .	2,189,580	5,035,676	151,097	516,367
Total Foreign Countries . . . . .	2,977,060	5,133,139	203,981	529,675
Total Exports . . . . .	9,790,662	8,334,519	621,630	787,816

(C) *New Zealand*

## EXPORTS OF RABBIT-SKINS

	Quantity (No.)			Value (£)		
	1913	1921	1922	1913	1921	1922
United Kingdom	6,196,639	8,285,487	8,801,683	85,580	247,081	319,297
Total Empire Countries	6,265,508	8,547,655	8,907,993	86,737	259,726	321,620
United States	—	5,369,091	6,561,230	—	188,295	245,202
Total Foreign Countries	2,100	5,374,791	6,579,232	19	188,454	246,244
Total Exports	6,267,608	13,922,446	15,487,225	6,756	448,180	567,864

(D) *South Africa*

## EXPORTS OF SEALSKINS

	Year ended 31st December, 1913.		Year ended 31st December, 1922.	
	Quantity (lb.)	Value (£)	Quantity (lb.)	Value (£)
United Kingdom	152,485	5,609	14,746	14,034

(E) *Newfoundland*EXPORTS OF FURS, YEAR ENDED 30TH JUNE, 1922  
FURS

	Quantity (No.)	Value (\$).
United Kingdom	Not available	99,028
Canada	" "	18,725
United States	" "	190,785
Total		308,538

## SEALS, DRESSED

Canada	5	34
United States	10	95
Total	15	129

## SEALSKINS

United Kingdom	66,108	113,308
Canada	315	761
United States	63,818	91,583
Total	130,241	205,652

## SEAL PELTS

Canada	455	790
--------	-----	-----

# OTHER EMPIRE COUNTRIES

349

## (F) Great Britain

The imports of undressed and dressed fur skins and fur manufactures into Great Britain are as follows :—

### UNDRESSED RABBIT-SKINS

Country.	Quantity No. (000)			Value £(000) *		
	1913	1921	1922	1913	1921	1922
<i>Belgium</i> . . . . .	11,932	3,011	4,649	130	69	110
Total Foreign Countries	12,383	3,845	5,371	135	91	139
<i>Australia</i> . . . . .	53,476	14,596	19,675	473	230	352
<i>New Zealand</i> . . . . .	7,404	14,525	9,095	92	353	296
Total Empire Countries	60,959	29,139	28,820	566	583	648
Total . . . . .	73,342	32,984	34,191	701	674	787
Re-exports . . . . .	48,443	33,508	29,821	480	729	662

### UNDRESSED SEALSKINS

<i>Russia</i> . . . . .	73	12	10	24	4	1
<i>Norway</i> . . . . .	43	54	69	16	24	21
Total Foreign Countries	122	73	97	49	51	41
<i>Cape of Good Hope</i> . . . . .	24	12	13	15	20	15
<i>Newfoundland and Coast of Labrador</i> . . . . .	119	42	—	35	14	—
Total Empire Countries	146	59	14	55	51	17
Total . . . . .	268	132	111	104	102	58
Re-exports . . . . .	25	14	10	12	7	4

### UNDRESSED FUR SKINS NOT OTHERWISE SPECIFIED

<i>Russia</i> . . . . .	Not	389	1,605	Not	108	211
<i>United States</i> . . . . .	avail-	5,864	6,982	avail-	1,849	2,409
Total Foreign Countries	able.	8,196	12,110	able.	2,313	3,261
<i>Australia</i> . . . . .	"	498	1,158	"	104	256
<i>Canada</i> . . . . .	"	1,078	1,079	"	920	1,228
Total Empire Countries	"	1,918	3,272	"	1,204	1,879
Total . . . . .	"	10,114	15,382	"	3,517	5,140
Re-exports . . . . .	"	10,904	12,690	"	3,819	4,823

### DRESSED RABBIT-SKINS

<i>Germany</i> . . . . .	484	410	1,414	18	42	123
<i>Belgium</i> . . . . .	1,346	2,871	4,951	36	151	330
<i>France</i> . . . . .	692	529	1,053	46	60	111
<i>United States</i> . . . . .	2	448	2,348	—	62	198
Total Foreign Countries	2,857	4,051	11,053	115	341	829
Total Empire Countries	7	2	16	—	—	1
Total . . . . .	2,864	4,053	11,069	115	341	830
Re-exports . . . . .	363	683	1,435	18	101	160

## LEATHER, HIDES, AND SKINS

## DRESSED SEALSKINS

Country.	Quantity No. (000)		1913	Value £(000)	
	1913	1921		1921	1922
Total Foreign Countries	2	1	13	8	—
Total Empire Countries	—	—	—	—	—
Total	2	1	13	8	—
Re-exports	—	—	2	3	6

## DRESSED FUR SKINS NOT OTHERWISE SPECIFIED

<i>Germany</i>	5,400	747	1,775	941	217	496
<i>China</i>	1,959	805	1,604	315	244	471
<i>United States</i>	22	481	949	4	135	170
Total Foreign Countries	8,657	2,491	6,158	1,424	764	1,677
Total Empire Countries	62	267	542	6	160	252
Re-exports	1,292	940	1,133	380	449	501

The exports of undressed and dressed skins from Great Britain and Ireland are as follows:—

## UNDRESSED RABBIT-SKINS

Country.	Quantity No. (000)		Value £(000)	
	1921	1922	1921	1922
<i>Belgium</i>	32,101	40,611	429	775
<i>United States</i>	7,002	8,989	110	222
Total Foreign Countries	42,497	51,272	584	1,044
Total Empire Countries	—	—	—	—
Total	42,497	51,272	584	1,044

## DRESSED RABBIT-SKINS

<i>France</i>	42	192	3	15
Total Foreign Countries	128	370	10	27
Total Empire Countries	58	20	9	1
Total	186	390	19	28

## DRESSED SEALSKINS

Total Foreign Countries	6	19	24	55
Total Empire Countries	—	—	1	1
Total	6	19	25	56

## DRESSED FUR SKINS NOT OTHERWISE SPECIFIED

<i>France</i>	519	516	229	252
Total Foreign Countries	898	974	406	472
<i>Australia</i>	56	143	15	37
Total Empire Countries	68	155	23	44
Total	966	1,129	429	516

**LIST OF CITY COMPANIES, EDUCATIONAL AND RESEARCH INSTITUTIONS,  
TRADE ASSOCIATIONS, LABOUR ORGANISATIONS, ETC.,  
CONNECTED WITH THE LEATHER INDUSTRY**

- LEATHERSELLERS' COMPANY, St. Helen's Place, E.C.
- CORDWAINERS' COMPANY, 7 Cannon Street, E.C. 4.
- BRITISH LEATHER MANUFACTURERS' RESEARCH ASSOCIATION, 26 St. Thomas Street, S.E. 1.
- LEATHERSELLERS' COMPANY'S TECHNICAL COLLEGE, 176 Tower Bridge Road, S.E. 1.
- CORDWAINERS' TECHNICAL COLLEGE (INC.), St. John's Lane, E.C. 1.
- LEEDS UNIVERSITY, DEPARTMENT OF LEATHER INDUSTRIES, Leeds.
- NORTHAMPTON TECHNICAL SCHOOL, Northampton.
- BOOT TRADES' RESEARCH ASSOCIATION, 50 City Road, E.C. 1.
- HIDE, LEATHER AND ALLIED TRADES' IMPROVEMENT SOCIETY, 176 Tower Bridge Road, S.E. 1.
- SOCIETY OF LEATHER TRADES CHEMISTS (Secretary, S. Hirst), 43 Woodbridge Road, Knowle, Bristol.
- LEATHER AND HIDE TRADES' BENEVOLENT & PROVIDENT INSTITUTION, 7 Denman Street, S.E. 1.
- BOOT TRADES' BENEVOLENT ASSOCIATION, 98 Gower Street, W.C.
- NATIONAL FEDERATION OF MEAT TRADERS, 4 Charterhouse Square, E.C. 1.
- FELLMONGERS' ASSOCIATION (Secretary, J. C. Harrington), 24 Southdean Gardens, S.W.
- NATIONAL FEDERATION OF HIDE & SKIN MARKETS. G. H. Tyler, 31 Bradford Street, Birmingham.
- UNITED TANNERS' FEDERATION (Manager, 26 St. Thomas Street, S.E. 1), embracing the following local federations:—
- BRISTOL & WEST OF ENGLAND TANNERS' FEDERATION.
  - LEEDS & NORTH-EASTERN TANNERS' FEDERATION.
  - LONDON & DISTRICT TANNERS' FEDERATION.
  - MIDLANDS DISTRICT TANNERS' FEDERATION.
  - NORTH-WESTERN TANNERS' FEDERATION.
  - SCOTTISH TANNERS' FEDERATION.
  - SHEEPSKIN TANNERS' FEDERATION.
- BRITISH GLACÉ KID TANNERS' ASSOCIATION. W. P. Cross, \*St. Andrew's Tannery, Northampton.
- FEDERATION OF CURRIERS, LIGHT LEATHER TANNERS & DRESSERS, INC. (Secretary, 9 St. Thomas Street, S.E. 1), embracing the following sections:—
- HARNESS & BELTING CURRIERS' SECTION.
  - LIGHT LEATHER TANNERS & FINISHERS' SECTION.
  - UPPER LEATHER CURRIERS & DRESSERS' SECTION.
  - CHROME LEATHER MANUFACTURERS' SECTION.
- INCORPORATED ASSOCIATION OF BOOT & SHOE MANUFACTURERS OF GREAT BRITAIN & IRELAND. Miss Tomlinson, 7 Tavistock Square, W.C. 1.
- LEATHER BELTING FEDERATION. L. Kidson (Messrs. Kidsons, Taylor & Co., 1 Booth Street, Manchester).
- ROLLER LEATHER MANUFACTURERS' ASSOCIATION. H. Taylor (Messrs. Kidsons, Taylor & Co., 1 Booth Street, Manchester).

- GLOVE MANUFACTURERS' ASSOCIATION. P. Tucker (Messrs. Blake & Co., Reckleford, Yeovil).
- HAT LEATHER MANUFACTURERS' ASSOCIATION. Messrs. Kidsons, Taylor & Co., 1 Bgoth Street, Manchester.
- NATIONAL LEATHER GOODS & SADDLERY MANUFACTURERS' ASSOCIATION (INC.). B. G. Arthur, Oxford Court, Cannon Street, E.C.
- THE BRITISH TANNING EXTRACT MANUFACTURERS' ASSOCIATION. H. McArthur, Bull Lane, Aintree, Liverpool.
- ASSOCIATION OF FACTORS, MERCHANTS & IMPORTERS OF LEATHER, HIDES & TANNING MATERIALS. H. W. Freshwater, 7-8 Railway Approach, S.E. 1.
- NATIONAL FEDERATION OF LEATHER & GRINDERY MERCHANTS' ASSOCIATION. J. A. Craig, Basma House, 13A, Fore Street, E.C. 2.
- SHOE DISTRIBUTORS' ASSOCIATION. J. A. Craig, Basma House, 13A Fore Street, E.C. 2.
- NATIONAL ASSOCIATION OF SHOE RETAILERS. L. J. Humphrey, Associate House, Mansell Street, Aldgate, E.C.
- INCORPORATED NATIONAL FEDERATION OF BOOT TRADES' ASSOCIATIONS, LTD. J. Hoyte, 1 Gordon Place, Tavistock Square, W.C. 1.
- LEATHER PRODUCERS' ASSOCIATION FOR ENGLAND, SCOTLAND & WALES (Manager, 26 St. Thomas Street, S.E. 1), embracing the following local associations :—
- LIVERPOOL MASTER TANNERS' ASSOCIATION.
- YORKSHIRE ASSOCIATION OF LEATHER MANUFACTURERS.
- WALSALL, BIRMINGHAM & DISTRICT MASTER CURRIERS' FEDERATION.
- MIDLAND TANNERS' LABOUR ASSOCIATION.
- MIDLAND COUNTIES MASTER CURRIERS' FEDERATION.
- WEST OF ENGLAND LEATHER PRODUCERS' ASSOCIATION.
- HAT LEATHER MANUFACTURERS' ASSOCIATION.
- SCOTTISH LEATHER PRODUCERS' ASSOCIATION.
- LONDON & DISTRICT LEATHER PRODUCERS' ASSOCIATION.
- NATIONAL LEATHER TRADES' FEDERATION. W. Collingson, 5 Ringley Street, Harpurhey, Manchester.
- AMALGAMATED SOCIETY OF LEATHER WORKERS, Hepworth Chambers, Briggate, Leeds.
- UNITED SOCIETY OF LEATHER PRODUCERS OF GREAT BRITAIN & IRELAND. W. Lilley, "Wool-pack" Tavern, Bermondsey Street, S.E. 1.
- SPEN VALLEY CURRIERS, Trades' Hall, Cleckheaton.
- UNITED PATENT LEATHER DRESSERS' SOCIETY. A. Hardcastle, York Street, Mitcham Junction.
- UNITED PATENT LEATHER GRAINERS' SOCIETY. W. McCartney, 67 Kenlor Road, Tooting, S.W.
- PROVINCIAL FRIENDLY SOCIETY OF SPANISH & MOROCCO LEATHER FINISHERS. W. H. Stancer, Ivy Villa, Greenfield Street, Nottingham.
- NATIONAL FEDERATION OF GENERAL WORKERS, St. Stephen's House, Victoria Embankment, S.W. 1.
- NATIONAL UNION OF GENERAL WORKERS, 28 Tavistock Square, W.C.
- LEATHER TRADES' MUTUAL INSURANCE ASSOCIATION, LTD., 26 St. Thomas Street, S.E. 1.
- SHOE & LEATHER FAIR SOCIETY. J. A. Craig, Basma House, 13A Fore Street, E.C.

# INDEX

## SECTION A (SUMMARY)

(p. refers to page)

- |   |  |
|---|--|
| Cattle, numbers in various Empire countries, p. 18          | • Production of hides in various Empire countries, p. 19           |
| Goats, numbers in various Empire countries, p. 18           | „ of skins in various Empire countries, p. 19                      |
| Hides, production in various Empire countries, p. 19        | „ of tanning materials in various Empire countries, p. 19          |
| „ and skins, consumption in various Empire countries, p. 22 |  |
| International trade in hides and skins, p. 22               | Sheep, numbers in various Empire countries, p. 12                  |
| Leather consumption in various Empire countries, p. 24      | Skins, production in various Empire countries, p. 19               |
| manufactures, production in various Empire countries, p. 25 |  |
| production in various Empire countries, p. 23               | Tanning materials, consumption in various Empire countries, p. 221 |
|   | „ materials, production in various Empire countries, p. 19         |

## SECTION B (GREAT BRITAIN AND IRELAND)

(p. refers to page; B refers to Table B at the end of the Section)

- |   |   |
|---|---|
| Acetic acid B 124                                     | Bag industry, materials used and gross output, B 11               |
| Aden—   | Bags, leather, imports, p. 95, B 80                               |
| Goatskins, imports from and retained, B 19            | „ leather, exports, p. 96, B 30, 119                              |
| Hides, imports from and retained, B 18                | „ leather, re-exports, B 80                                       |
| Sheep- and lambskins, imports from and retained, B 20 | Bark for tanning, imports, B 3, 4, 48                             |
| Algarobilla, consumption, B 21                        | „ „ re-exports, B 48  |
| Ammonia, B 124  | Belgium—  |
| Anthrax, pp. 71, 72                                   | Hides, imports from and retained, B 18                            |
| Argentina—  | Bellies, production, B 24   |
| Hides, imports from and retained, B 18                | Belting, cotton, imports, B 87                                    |
| Sheep- and lambskins, imports from and retained, B 20 | „ cotton, re-exports, B 87  |
| Arsenic, B 124  | „ exports, B 29, 30   |
| Artificial fancy leather goods, exports, B 121        | „ hair, imports, B 87   |
| „ leather goods, imports, B 34                        | „ hair, or cotton, exports, B 116                                 |
| „ leather goods, re-exports, B 84                     | „ hair, re-exports, B 87  |
| Australia—  | „ leather, imports, B 7, 8, 86                                    |
| Hides, imports from and retained, B 18                | „ leather, exports, B 115   |
| Sheep- and lambskins, imports from and retained, B 20 | „ leather, exports from United States to United Kingdom, B 25, 26 |
|   | „ leather, re-exports, B 86                                       |



- Belting, leather, production, p. 81, B 9  
 „ not leather, hair, or cotton, exports, B 117  
 „ other than leather, hair, or cotton, imports, B 88  
 „ other than leather, hair, or cotton, re-exports, B 88  
 „ production, p. 81.
- Bends, vegetable production, B 24  
 „ chrome production, B 24
- Bichromate of soda and potash, B 124
- Bisulphite of soda, B 124
- Bookbinding leather, p. 89
- Boot repairs, p. 79
- Boots, exports, pp. 92, 93, B 29, 30, 111  
 „ production, p. 91  
 „ and shoes, leather, imports, p. 91, B 7, 8, 75  
 „ and shoes, exports from United States to United Kingdom, B 25, 26  
 „ leather, re-exports, B 75  
 „ leather, men's, imports, B 76  
 „ leather, men's, exports, B 112  
 „ leather, men's, re-exports, B 76  
 „ leather, women and children's, imports, B 77  
 „ leather, women and children's, exports, B 113  
 „ leather, women and children's, re-exports, B 77  
 „ not leather, imports, B 78  
 „ not leather, re-exports, B 78
- Borax, B 124
- Boric acid, B 124
- Box calf, imports, p. 86, B 5, 6, 67  
 „ exports, p. 87, B 27, 28, 105  
 „ re-exports, B 67
- Branded hides, p. 57
- Brazil—  
 Hides, imports from and retained, B 18
- Bristol—  
 Imports of hides, B 22, 23
- British Guiana—  
 Hides, imports from and retained, B 18
- British West Indies—  
 Hides, imports from and retained, B 18
- Bull hides, numbers monthly, B 15
- Calf leather, dressed, not upper, imports, B 73  
 „ dressed, not upper, exports, B 108  
 „ dressed, not upper, re-exports, B 73  
 „ exports from United States to United Kingdom, B 25, 26  
 „ undressed, imports, B 5, 6, 61
- Calf leather, undressed, exports, B 98  
 „ undressed, re-exports, B 61
- Calf, upper leather, consumption, p. 85  
 „ upper leather, imports, B 67  
 „ upper leather, production, p. 86  
 „ upper leather, exports, B 105  
 „ upper leather, re-exports, B 67
- Calfskins, seasonal variations in supplies, p. 58  
 „ production, pp. 47, 58  
 „ classification, p. 57  
 „ dry, imports, B 1, 2  
 „ dry and dry-salted, imports, B 35  
 „ dry and dry-salted, re-exports, B 37  
 „ exports of, B 90  
 „ numbers in weight classes, B 14  
 „ numbers monthly, B 15  
 „ quantity and value, exports, B 17  
 „ wet imports, B 1, 2, 31  
 „ wet, re-exports, B 34
- Cape of Good Hope—  
 Goatskins, imports from and retained, B 19  
 Hides, imports from and retained, B 18  
 Sheep- and lambskins, imports from and retained, B 20
- Carbolic, commercial, B 124
- Carbonate of soda, B 124
- Carriage leather, exports from United States to United Kingdom, B 25, 26
- Casein, B 124
- Castor oil, B 124
- Casualty hides, numbers monthly, B 15
- Cattle hides, production, pp. 47, 48  
 „ numbers, Great Britain, B 12  
 „ numbers, Ireland, B 13
- Channel Islands—  
 Hides, imports from and retained, B 18
- Chemicals, p. 68, B 124
- Chestnut extract, consumption, p. 65, B 21  
 „ imports, B 55  
 „ re-exports, B 55
- Chile—  
 Hides, imports from and retained, B 18  
 Sheep- and lambskins, imports from and retained, B 20
- China—  
 Goatskins, imported from and retained, B 19  
 Hides, imports from and retained, B 18
- Chrome alum, B 124
- Class of lambpelts, B 16
- Classes of sheep-pelts, B 16
- Clothing leather, exports, B 29, 30
- Cod oil, B 124
- Colombia—  
 Hides, imports from and retained, B 18
- Combing leather, p. 82

- Condenser rubber leather, p. 82
- Costa Rica—
  - Hides, imports from and retained, B 18
- Cotton belting, imports, B 87
  - „ „ exports, B 116
  - „ „ re-exports, B 87
- Cow-hides, numbers in weight classes, B 14
  - „ numbers monthly, B 15
- Cows, numbers, Great Britain, B 12
- Degras, B 124
- Denmark—
  - Hides, imports from and retained, B 18
- Distilled olein, B 124
- Dressed calf leather, exports, B 27, 28
  - „ goat leather, exports, B 27, 28
  - „ hide leather, exports, B 27, 28
  - „ leather, imports, B 5, 0
  - „ leather, production, B 9
  - „ sheep leather, exports, B 27, 28
- Dry hides, imports, B 1, 2
- Dry and dry-salted calfskins, imports, B 35
  - „ „ re-exports, B 37
  - „ „ hides, imports, B 36
  - „ „ hides, re-exports, B 38
- Ecuador—
  - Hides, imports from and retained, B 18
- Egg yolk, B 124
- Egypt—
  - Goatskins, imported from and retained, B 19
  - Hides, imports from and retained, B 18
  - Sheep- and lambskins, imports from and retained, B 20
- Empire tanning materials, B 21
- Employees in leather industry, p. 69
- Employees' organisations, p. 70
- Employers' organisations, p. 70
- Enamelled leather, exports, B 27, 28
  - „ „ production, B 9
- England—
  - Cattle and sheep in, B 12
- Extracts for tanning, imports, B 3, 4, 54, 57
  - „ „ re-exports, B 54, 57
- Extract for tanning, chestnut, imports, B 55
  - „ „ re-exports, B 55
  - „ „ oak imports, B 54
  - „ „ oak, re-exports, B 54
  - „ „ quebracho, re-exports, B 56
  - „ „ quebracho, imports, B 56
- Extracts, tanning, consumption, B 21
  - „ „ exports, B 94
- Falkland Islands—
  - Sheep- and lambskins, imports from and retained, B 20
- Fancy leather goods, imports, B 82
  - „ „ exports, B 30, 120
  - „ „ re-exports, B 82
  - „ „ industry, materials used and gross output, B 11
- Fellmongering, p. 61
  - „ materials used and gross output, B 11
- Flaying of native hides, p. 53
  - „ sheepskins, p. 60
- Foreign tanning materials, B 21
- Formic acid, B 124
- France—
  - Goatskins, imported from and retained, B 19
  - Hides, imports from and retained, B 18
- French Somaliland—
  - Hides, imports from and retained, B 18
- French West Africa—
  - Goatskins, imported from and retained, B 19
  - Hides, imports from and retained, B 18
- Fustic, B 124
- Gambia—
  - Hides, imports from and retained, B 18
- Gambier, consumption, B 21
  - „ imports, p. 65, B 3, 4, 50
  - „ re-exports, B 50
- German E. Africa—
  - Hides, imports from and retained, B 18
- German W. Africa—
  - Hides, imports from and retained, B 18
- Germany—
  - Hides, imports from and retained, B 18
- Glacé kid, imports, pp. 83, 84, B 5, 6, 68
  - „ exports, p. 85, B 27, 28, 106
  - „ re-exports, B 68
  - „ production, pp. 82-84
- Glasgow—
  - Imports of hides, B 22, 23
- Glove leather, exports from United States to United Kingdom, B 25, 26
- Gloves, exports, B 29, 30
  - „ „ from United States to United Kingdom, B 25-26
  - „ leather, imports, p. 94, B 7, 8, 79
  - „ „ exports, p. 94, B 114
  - „ „ re-exports, B 79
  - „ „ production, p. 93
- Goat leather, dressed, not upper, imports, B 74
  - „ „ „ not upper, exports, B 109
  - „ „ „ not upper, re-exports, B 74

- Goat leather, exports from United States to United Kingdom, B 25, 26
- Goats, numbers, Ireland, B 13
- Goatskin leather, undressed, imports, B 5, 6, 64.
- "    "    "    exports, B 101
- "    "    "    re-exports, B 64
- Goatskins, consumption, p. 65
- "    imports, p. 65, B 1, 2
- "    imports by ports, B 22, 23
- "    raw imports, B 43
- "    raw re-exports, B 43
- Gold Coast—
- Hides, imports from and retained, B 18
- Great Britain—
- Cattle and sheep in, B 12
- Hair belting, imports, B 87
- "    "    exports, B 116
- "    "    re-exports, B 87
- Harness, exports, p. 94
- "    production, p. 94
- "    exports from United States to United Kingdom, B 25, 26
- Harness and Saddlery, imports, B 81
- "    "    exports, B 118
- "    "    re-exports, B 81
- Hat leather, p. 90
- "    "    production, B 9
- Hemlock extract, consumption, B 21
- Hide classification, pp. 48, 49
- "    Improvement Society, pp. 56, 57
- "    leather, dressed, not upper, imports, B 73
- "    leather, dressed, not upper, exports, B 108
- "    leather, dressed, not upper, re-exports, B 73
- "    leather, undressed, imports, B 5, 6
- "    prices, p. 52
- "    supplies, p. 42
- Hides, dry, imports, B 1, 2
- "    dry and dry-salted, imports, B 36
- "    dry and dry-salted, re-exports, B 38
- "    exports of, p. 62, B 90
- "    from imported cattle slaughtered in United Kingdom, exports, B 89
- "    from imported cattle, quantity and value, exports, B 17
- "    imports, p. 63
- "    imports by ports, B 22, 23
- "    quantity and value, exports, B 17
- "    wet, imports, B 1, 2, 32
- "    wet, re-exports, B 33
- Holland—
- Hides, imports from and retained, B 18
- Hong-Kong—
- Hides, imports from and retained, B 18
- Horse-hide production, pp. 47, 57
- "    hides, numbers monthly, B 15
- Horses, numbers, Great Britain, B 12
- "    numbers, Ireland, B 13
- Hose butts, p. 82
- Hull—
- Imports of hides, B 22, 23
- Hydraulic leather, p. 82
- Hydrochloric acid, B 124
- Index No. of hide prices, p. 52
- India—
- Goatskins, imports from and retained, B 19
- Hides, imports from and retained, B 18
- Sheep- and lambskins, imports from and retained, B 20
- Ireland—
- Cattle, number, B 13
- Goats, number, B 13
- Horses, number, B 13
- Sheep, number, B 13
- Irish imports, 1913 and 1919, B 126
- "    exports, 1913 and 1919, B 125
- "    hides, B 124
- Italian East Africa—
- Hides, imports from and retained, B 18
- Italy—
- Hides, imports from and retained, B 18
- Japan—
- Hides, imports from and retained, B 18
- Japanned leather, imports, B 5, 6, 69
- "    "    exports, B 104
- "    "    re-exports, B 69
- "    "    production, B 9
- Java—
- Hides, imports from and retained, B 18
- Kenya—
- Goatskins, imports from and retained, B 19
- Hides, imports from and retained, B 18
- Kid leather, dressed, not upper, imports, B 74
- "    dressed, not upper, exports, B 109
- "    dressed, not upper, re-exports, B 74
- "    exports from the United States to the United Kingdom, B 25, 26
- Kip leather, dressed, not upper, imports, B 73
- "    dressed, not upper, exports, B 108
- "    dressed, not upper, re-exports, B 73
- "    exports from the United States to the United Kingdom, B 25, 26
- "    undressed, imports, B 62
- "    undressed, exports, B 99
- "    undressed, re-exports, B 62

Labour conditions in leather industry, p. 71  
 Laces, leather, production, B 9  
 Lactic acid, B 124  
 Lambpelts, classification, B 16  
 Lambskins, pickled, imports, B 40  
 " pickled, exports, B 92  
 " pickled, re-exports, B 42  
 " quantity and value, exports, B 17  
 " woolled, imports, B 39  
 " woolled, exports, B 91  
 " woolled, re-exports, B 41  
 Larch bark, consumption, B 21  
 Leather belting, imports, B 86  
 " belting, exports, B 115  
 " belting, re-exports, B 86  
 " consumption, p. 46  
 " dressed, not upper, imports, B 73, 74  
 " dressed, not upper, exports, B 108-110  
 " dressed, not upper, re-exports, B 73, 74  
 " exports, p. 45  
 " imports, p. 45  
 " imports by ports, B 22, 23  
 " manufactures, imports, B 7, 8  
 " patent or japanned, imports, B 5, 6, 69  
 " patent or japanned, exports, B 104  
 " patent or japanned, re-exports, B 69  
 " production, pp. 42-45, 75  
 " sole, imports, B 59  
 " sole, exports, B 96  
 " sole, re-exports, B 59  
 " undressed, calf, imports, B 5, 6, 61  
 " undressed, calf, exports, B 98  
 " undressed, calf, re-exports, B 61  
 " undressed, exports, B 95  
 " undressed, goatskin, imports, B 5, 6, 64  
 " undressed, goatskin, exports, B 101  
 " undressed, goatskin, re-exports, B 64  
 " undressed, hide, exports, B 100  
 " undressed, hide, imports, B 5, 6, 63  
 " undressed, hide, imports, B 58  
 " undressed, hide, exports, B 97  
 " undressed, hide, re-exports, B 58, 63  
 " undressed, kip, imports, B 62  
 " undressed, kip, exports, B 99  
 " undressed, kip, re-exports, B 62  
 " undressed, ox- and cow-hide, im-  
 ports, B 60  
 " undressed, ox- and cow-hide, re-  
 exports, B 60  
 " undressed, sheepskin, exports, B 102  
 " undressed, sheepskin, imports, B 5,  
 6, 65  
 " undressed, sheepskin, re-exports, B 65  
 " undressed, skin, exports, B 103  
 " upper, exports, B 105-107

Lining leather, p. 89  
 Linseed oil, B 124  
 Liverpool—  
 " Imports of hides, B 22, 23  
 Logwood chips, B 124  
 " extract, B 124  
 London—  
 " Imports of hides, B 22, 23  
 Madagascar—  
 " Hides, imports from and retained, B 18  
 Malta—  
 " Hides, imports from and retained, B 18  
 Manufactures of leather, consumption, p. 47  
 " of leather imports, pp. 47, 96, B 7,  
 8, 75-88  
 " of leather, exports, pp. 47, 96,  
 B 111-123  
 " of leather, re-exports, B 75-88  
 " of leather, exports from the  
 United States to the United  
 Kingdom, B 25, 26  
 " of leather production, p. 47  
 Measurement of leather, pp. 74, 75  
 Mechanical leather, p. 82  
 Mesopotamia—  
 " Sheep- and lambskins, imports from and  
 retained, B 20  
 Mimosa bark, consumption, p. 65, B 21  
 " extract, consumption, B 21  
 Mineral oil, B 124  
 Morocco—  
 " Goatskins, imports from and retained, B 19  
 " Sheep- and lambskins, imports from and  
 retained, B 20  
 Morocco leather, imports, B 5, 6  
 Muratic acid, B 124  
 Myrobalan extract, consumption, B 21  
 Myrobalans, consumption, B 21  
 " imports, p. 65, B 3, 4, 51  
 " re-exports, B 51  
 Natal—  
 " Goatskins, imports from and retained, B 19  
 " Hides, imports from and retained, B 18  
 " Sheep- and lambskins, imports from and  
 retained, B 20  
 Native hides and skins, pp. 42, 47  
 " seasonal variation in prices, p. 51  
 " seasonal variation in supplies, p. 50  
 Neatsfoot oil, B 124  
 New Zealand—  
 " Hides, imports from and retained, B 18  
 " Sheep- and lambskins, imports from and  
 retained, B 20

- Nigeria—  
 Goatskins, imports from and retained, B 19  
 Hides, imports from and retained, B 18  
 Nigrosine, B 124  
 Norway, hide, imports from and retained, B 18
- Oak bark, consumption, B 21  
 „ extract, imports, B 54  
 „ extract, re-exports, B 54
- Output of leather, B 9  
 Ox- and heifer hides, numbers monthly, B 15  
 „ „ numbers in weight classes, B 14
- Paraffin wax, B 124  
 Parchment and vellum production, B 9  
 Patent leather, p. 87  
 „ „ imports, B 5, 6, 69  
 „ „ exports, B 27, 28, 104  
 „ „ exports from United States to United Kingdom, B 25, 26  
 „ „ re-exports, B 69
- Pelts, classification, B 16  
 „ sold, monthly numbers, B 16
- Picking bands, p. 82
- Pickled pelts, exports, p. 64  
 „ pelts, imports, p. 64  
 „ sheep- and lambskins, imports, B 40  
 „ sheep- and lambskins, re-exports, B 42  
 „ sheepskins, imports, B 1, 2  
 „ sheepskins, exports, B 92
- Portugal—  
 Hides, imports from and retained, B 18
- Portuguese East Africa—  
 Hides, imports from and retained, B 18
- Quebracho, exports, B 93  
 „ extract, consumption, p. 65, B 21  
 „ extract, imports, B 56  
 „ extract, re-exports, B 56
- Redwood, B 124  
 Refined curriers' grease, B 124  
 Repaired chrome liquor, B 124  
 Roller leather, pp. 82, 89  
 Rough-tanned goatskins, consumption, p. 90  
 „ leather, exports, p. 80  
 „ leather, imports, p. 79  
 „ sheepskins, consumption, p. 91
- Russia—  
 Hides, imports from and retained, B 18  
 Sheep- and lambskins, imports from and retained, B 20
- Saddlers, B 10  
 Saddlery, exports, p. 94  
 „ exports from United States to United Kingdom, B 25, 26  
 „ and harness, imports, B 81  
 „ and harness, exports, B 29, 30, 118  
 „ and harness, re-exports, B 81  
 „ and harness, materials used and gross output, B 11  
 „ production, p. 94
- Scotland  
 Cattle and sheep in, B 12  
 Semi-chrome upper leather, consumption, p. 88  
 Sheep- and lambskins, pickled, exports of, B 92  
 „ „ woolled, exports of, B 91  
 Sheep leather, dressed, not upper, imports, B 74  
 „ „ „ dressed, not upper, exports, B 109  
 „ „ „ dressed, not upper, re-exports, B 74  
 „ „ „ undressed, exports, B 102  
 Sheep, numbers, Great Britain, B 12  
 „ „ numbers, Ireland, B 13  
 „ „ pelts, classification, B 16  
 Sheepskin leather, undressed, imports, B 5, 6, 65  
 „ leather, undressed, re-exports, B 65  
 „ product, pp. 47, 59, 64
- Sheepskins, classification, pp. 60, 61  
 „ consumption, p. 64  
 „ exports, p. 64  
 „ fellmongered, monthly numbers, B 16  
 „ imports, p. 64  
 „ pickled, imports, B 1, 2, 40  
 „ pickled, re-exports, B 42  
 „ quantity and value, exports, B 17  
 „ seasonal variations in supplies, pp. 59, 60  
 „ „ woolled, imports, B 1, 2, 39  
 „ „ woolled, re-exports, B 41
- Shoulders, production, B 24
- Siam—  
 Hides, imports from and retained, B 18  
 Skin supplies, p. 42  
 Slippers, exports from United States to United Kingdom, B 25, 26
- Soap, B 124  
 Sod oil, B 124  
 Sodium hyposulphite, B 124  
 Sole leather, imports, p. 78, B 59  
 „ „ exports, p. 78, B 27, 28, 96  
 „ „ re-exports, B 59  
 „ „ exports from United States to United Kingdom, B 25, 26

Sole leather, production, pp. 76, 77, B 24 .  
 " " tanners, p. 78  
 Southampton—  
 Imports of hides, B 22, 23  
 Spain—  
 Sheep- and lambskins, imports from and retained, B 20  
 Splits, exports from United States to United Kingdom, B 25, 26  
 Sports goods, leather, imports, p. 95, B 83  
 " " leather, exports, p. 96, B 30, 122  
 " " leather, re-exports, B 83  
 Stearine, B 124  
 Straits Settlements—  
 Hides, imports from and retained, B 18  
 Sulphide of sodium, B 124  
 Sulphite of alum, B 124  
 Sulphonated oils, B 124  
 Sulphur, B 124  
 Sulphuric acid, B 124  
 Sumach, consumption, B 21  
 " imports, p. 65, B 3, 4, 49  
 " re-exports, B 49  
 Switzerland—  
 Hides, imports from and retained, B 18  
 Tallow, B 124  
 Tanned kips, p. 79  
 Tanners in Great Britain, pp. 69, 70  
 Tanning bark, imports, B 3, 4, 48  
 " " re-exports, B 48  
 " contents of materials consumed, B 21  
 " employees, B 10  
 " extract, chestnut, imports, B 55  
 " " re-exports, B 55  
 " " oak, imports, B 54  
 " " re-exports, B 54  
 " quebracho, imports, B 56  
 " " re-exports, B 56  
 " extracts, imports, B 3, 4, 54, 57  
 " " exports, B 94  
 " " re-exports, B 54-57  
 " and leather dressing, materials used and gross output, B 11  
 " materials, consumed, B 21  
 " " crude, imports, B 48-53  
 " " re-exports, B 48-53  
 " imports, p. 65  
 " supplies, p. 42  
 Textile leathers, p. 82  
 Tongue leather, p. 89  
 Trunks, leather, imports, p. 95, B 80  
 " " exports, p. 96, B 30, 119  
 " " re-exports, B 80

Turkey—  
 Goatskins, imported from and retained, B 19  
 Uganda—  
 Hides, imports from and retained, B 18  
 Undressed calf leather, exports, B 27, 28  
 " goat leather, exports, B 27, 28  
 " hide leather, exports, B 27, 28  
 " kip leather, exports, B 27, 28  
 " leather, exports, B 27, 28  
 " leather, production, B 9  
 " sheep leather, exports, B 27, 28  
 United States—  
 Goatskins, imports from and retained, B 19  
 Hides, imports from and retained, B 18  
 Upholstery leather, exports from United States to United Kingdom, B 25, 26  
 Upper leather, imports, p. 89, B 67, 68, 70  
 " " exports, p. 89, B 105-107  
 " " exports from United States to United Kingdom, B 25, 26  
 " " production, pp. 82, 87-89  
 " " re-exports, B 67, 68, 70  
 Uruguay—  
 Hides, imports from and retained, B 18  
 Valonia, consumption, B 21  
 " extract, consumption, B 21  
 " imports, p. 65, B 3, 4, 52  
 " re-exports, B 52  
 Value of tanning materials consumed, B 21  
 Varnished leather, production, B 9  
 Venezuela—  
 Hides, imports from and retained, B 18  
 Wages system in leather industry, pp. 70, 71  
 Wales—  
 Cattle and sheep in, B 12  
 Warble fly, pp. 54-56  
 Wattle bark, consumption, B 65  
 " bark consumption, p. 21  
 " extract, consumption, B 21  
 Wax kips, consumption, p. 88  
 " splits, consumption, p. 88  
 Weight of tanning materials consumed, B 21  
 Wet calfskins, imports, B 1, 2  
 " hides, imports, B 1, 2  
 Wet-salted calfskins, re-exports, B 31  
 " " re-exports, B 34  
 " hides, imports, B 32  
 " " re-exports, B 33  
 Whale oil, B 124

- Willow calf, imports, B 67  
 " " exports, B 105  
 " " re-exports, B 67  
 Wool grease, B 124  
 Woolled sheepskins, imports, B 1, 2  
 " " exports, B 91  
 " sheep- and lambskins, imports, B 39  
 " " " re-exports, B 41
- Workpeople engaged in fellmongering industry,  
 B 10  
 " engaged in leather industry, B 10
- Zanzibar—  
 Goatskins, imports from and retained, B 19  
 Hides, imports from and retained, B 18

## SECTION C (INDIA)

(p. refers to page; C refers to Table C at the end of the Section)

- Adulteration, pp. 162, 163  
 Anthrax, p. 159  
 Avarum, p. 160
- Bags, leather, imports, C 38  
 Bark, imports, C 26  
 " exports, C 12, 14  
 Belting, consumption, p. 166  
 " leather, imports, p. 166, C 36  
 Belt laces, consumption, p. 166  
 Boots, imports, p. 166, C 35  
 Boots and shoes, exports, C 23  
 Branding of cattle, p. 157  
 Buffalo hides, number, exports, C 2  
 " " exports, p. 156, C 4  
 " " tanned, exports, C 17
- Calfskins, number, exports, C 2  
 " exports, p. 156, C 5, 6, 7  
 " tanned, exports, C 20, 21
- Cattle, number, p. 154, C 1  
 Classification of hides and skins, p. 156  
 Consumption statistics, p. 167  
 Cow-hides, numbers, exports, C 2  
 " exports, p. 155, C 3  
 " tanned, exports, C 16
- Cutch, imports, C 27  
 " exports, p. 161, C 12, 13
- Donkeys, number, C 1
- Export duties on hides and skins, p. 155  
 Exports, summary of, p. 167  
 Extract of myrobalans, exports, C 11
- Flying of hides, p. 157
- Gambier, imports, C 27  
 " exports, C 12, 13
- Goats, number, C 1
- Goatskins, imports into United States, C 40  
 " number, exports, C 2  
 " exports, p. 158, C 8  
 " tanned, exports, C 18
- Harness, imports, C 37  
 Hides, imports, p. 166, C 24  
 " exports, pp. 153, 154, C 3, 4  
 Horses, number, C 1
- Imports, summary of, p. 167  
 Import tariff, p. 167  
 Indigo, exports, C 12
- Kips, tanned, exports, C 16
- Leather, imports, p. 166, C 28, 29, 30, 31  
 " exports, p. 161, C 15  
 " unwrought, exports, C 22
- Manufactures of leather imports, C 39  
 Mules, number, C 1  
 Myrobalan extract, exports, C 11  
 Myrobalans, p. 160  
 " exports, p. 160, C 10, 12
- Pickers, consumption, p. 166  
 " imports, p. 166, C 34  
 Picking bands, consumption, p. 166  
 " " imports, p. 166, C 33  
 Production statistics, p. 167  
 Pump leather, consumption, p. 166
- Roller leather, production, p. 165  
 " skins, imports, p. 166, C 32
- Saddlery, imports, C 37  
 Sheep, number, C 1  
 Sheepskins, number, exports, C 2  
 " exports, p. 159, C 9  
 " tanned, exports, C 19

# INDEX

361

Skins classification, C 11  
 " exports, p. 153, C 8, 9  
 " export duties, C 1  
 " imports, p. 166, C 25

Tanned buffalo hides, exports, p. 161, C 17  
 " calfskins, exports, C 20, 21  
 " cow-hides, exports, p. 161, C 16  
 " goatskins, exports, p. 164, C 18  
 " hides, imports, C 29  
 " kips, exports, p. 161, C 16  
 " sheepskins, exports, p. 164, C 19  
 " skins, imports, C 30

Tanneries, pp. 161, 162  
 Tanning barks, imports, p. 166, C 26  
 " barks, exports, C 12, 14  
 " extract, exports, C 11, 12  
 " materials, exports, p. 153, C 10-14  
 Tariff, import, p. 167  
 " export, C 1  
 Trunks, leather, imports, C 38  
 Turmic, exports, C 12  
 Turwad, p. 160  
 Unwrought leather, imports, C 31  
 " exports, C 22

## SECTION D (CANADA)

(p. refers to Page; D refers to Table D at the end of the Section)

Bags, leather, imports, D 9  
 " " production, p. 199  
 Bark for tanning, consumption, p. 194  
 " " exports, p. 194, D 40  
 Belting leather exports from United States to  
 Canada, D 43  
 " " exports, D 36  
 " " imports, D 13, 35  
 " " leather, production, p. 196, D 9  
 " " rubber, imports, D 40  
 Bichromate, imports, D 40  
 Bookbinders' leather, production, D 9  
 Boot factories, p. 198  
 Boots, consumption of, p. 199  
 " exports from United States to Canada,  
 D 43  
 " exports, p. 198, D 31  
 " imports, p. 198, D 29, 30  
 " imports into United States from Canada,  
 D 42  
 " rubber, p. 199, D 40  
 " production, p. 198, D 28  
 Boys' boots, production, D 28

Calf leather, dressed, imports, D 18  
 " " exports from United States to  
 Canada, D 43  
 " " imports, D 10  
 " " imports into United States from  
 Canada, D 42  
 " " rough-tanned, imports, p. 197,  
 D 17  
 Calfskins, exports from United States to Canada,  
 D 44  
 " imports into United States from  
 Canada, D 41

Calfskins, imports, p. 192, D 3  
 " used, p. 191  
 Carriage leather, production, D 9  
 Cattle hides, imports into United States from  
 Canada, D 41  
 " " exports, p. 192  
 " " imports, p. 192, D 2  
 " " used, p. 191  
 Cattle slaughtering, p. 191, D 1  
 " stocks, p. 191, D 1  
 Chamois leather, imports, D 19  
 " skins, imports, D 10  
 " " imports into United States from  
 Canada, D 42  
 Chemicals used in tanneries, p. 195  
 Consumption of hides and skins, p. 194  
 Domestic calfskins, used, p. 193  
 " hides, used, p. 193  
 Dressed leather, imports, D 22  
 Dyes used in tanneries, p. 195  
 Extract for tanning, exports, D 40  
 Fats used in tanneries, p. 195  
 Foreign hides, used, p. 193  
 " calfskins, used, p. 193  
 Fustic extract, imports, D 39  
 Girls' boots, production, D 28  
 Glove factories, p. 200  
 " leather, exports from United States to  
 Canada, D 43  
 imports, p. 197, D 10, 21  
 imports into United States from  
 Canada, D 42



- Glove leather, production, D 9  
 Gloves, exports, D 34  
 „ exports from United States to Canada, D 43  
 „ imports, D 34 (a)  
 „ imports into United States from Canada, D 42  
 „ production, p. 200  
 Glue stock, imports into United States from Canada, D 41  
 „ „ production, p. 196, D 9  
 Goat leather, exports from United States to Canada, D 43  
 „ „ imports into United States from Canada, D 42  
 „ „ imports, D 10  
 „ „ dressed, imports, D 18  
 „ „ rough-tanned, imports, D 17  
 Goatskins, imports into United States from Canada, D 41, 42  
 „ tanned, p. 194, D 7  
 Harness, consumption, p. 199  
 „ exports from United States to Canada, D 43  
 „ exports, p. 199, D 33  
 „ factories, p. 199  
 „ imports, p. 199, D 32  
 „ production, p. 199  
 „ leather, exports, D 11, 26  
 „ „ imports, p. 197, D 10, 14  
 „ „ production, p. 196, D 9  
 Hemlock extract, exports, p. 194, D 40  
 Hide cuttings, imports into United States from Canada, D 41  
 Hides, exports from United States to Canada, D 44  
 „ exports, D 40  
 „ imports, D 2, 5, 6  
 „ used in tanneries, p. 195, D 7  
 „ and skins, regulations governing importation, Appendix D 1  
 „ „ tanned, on commission, D 8  
 Horse boots, imports, D 32  
 „ hides, exports from United States to Canada, D 44  
 „ „ imports into United States from Canada, D 41  
 „ „ used, p. 191  
 Japanned leather, imports, D 10, 15  
 „ „ imports into United States from Canada, D 42  
 Kangaroo skins, imports into United States from Canada, D 41  
 Kips, imports, D 3  
 Lace leather, production, D 9  
 Ladies' boots, production, D 28  
 Leather belting, exports from United States to Canada, D 43  
 „ „ exports, p. 201, D 36  
 „ „ imports, p. 201, D 10, 35  
 „ exports, p. 196, 197, D 27  
 „ exports from United States to Canada, p. 197, D 43  
 „ goods, pp. 200, 201  
 „ imports, p. 196, D 23  
 „ manufactures, exports, D 38  
 „ „ imports, D 37  
 „ produced, pp. 196, 201, D 9  
 Logwood extract, imports, D 39  
 Manufactures of leather, exports from United States to Canada, D 4  
 „ „ exports, D 38  
 „ „ imports, D 37  
 Men's boots, production, D 28  
 Misses' boots, production, D 28  
 Morocco leather, imports into United States from Canada, D 42  
 „ „ imports, p. 197, D 10, 16  
 Number of hides and skins used in tanneries, D 7  
 Oak extract, imports, D 39  
 Oils used in tanneries, p. 195  
 Patent leather, exports from United States to Canada, D 43  
 „ „ imports, p. 197, D 10, 15  
 „ „ imports into United States from Canada, D 42  
 Production of hides and skins, p. 194  
 „ of leather, p. 195  
 Quebracho extract, imports, D 39  
 Rubber belting, imports, D 40  
 „ boots, imports, D 40  
 „ shoes, imports, D 40  
 Saddlery, exports from, United States to Canada, D 43  
 „ exports, D 33  
 „ imports, D 32  
 Scrap leather, imports, D 10, 40

# INDEX

363

- Sheep leather, dressed, imports, D 18
  - „ „ imports, D 10
  - „ „ imports into United States from Canada, D 42
  - „ „ rough tanned, imports, D 17
  - „ „ slaughterings, D 1
  - „ „ stocks, p. 193, D 1
- Sheepskins, exports, p. 193, D 40
  - „ imports, p. 193, D 4
  - „ used, p. 193
  - „ imports into United States from Canada, D 41
- Shoes, exports from United States to Canada, D 43
  - „ exports, D 31
  - „ imports, D 29, 30
  - „ imports into United States from Canada, D 42
  - „ rubber, imports, D 40
  - „ production, D 28
- Side leather, exports from United States to Canada, D 43
- Skins, imports, D 5, 6
  - „ used in tanneries, p. 195, D 7
- Slippers, exports from United States to Canada, D 43
  - „ imports, D 29
  - „ production, D 28
- Sole leather, exports, p. 198, D 11, 24
  - „ „ exports from United States to Canada, D 43
  - „ „ imports, p. 197, D 10, 12
  - „ „ imports into United States from Canada, D 42
- Sole leather, production, p. 196, D 9
  - „ „ used in boot factories, p. 198
- Splits, exports from United States to Canada, D 43
- Tanned leather, imports into United States from Canada, D 42
- Tanneries, p. 195
- Tanning bark, exports, p. 194, D 40
  - „ extracts, imports, p. 194, D 39
  - „ materials, imports, p. 194, D 40
  - „ „ used, p. 195
- Trunks, p. 199
- Upholstery leather, exports from United States to Canada, D 43
  - „ „ production, p. 196
- Upper leather, exports, p. 198, D 11, 25
  - „ „ exports from United States to Canada, D 43
  - „ „ imports, p. 197, D 10, 19, 20
  - „ „ imports into United States from Canada, D 42
  - „ „ production, p. 196, D 9
  - „ „ used in boot factories, p. 198
- Value of hides and skins used in tanneries, D 7
- Weight of hides and skins used in tanneries, D 7
- Youths' boots, production, D 28

## SECTION E (AUSTRALIA)

(p. refers to page; E refers to Table E at the end of the Section)

- Bark, consumption, E 20
  - „ exports, p. 230, E 17 (b)
  - „ import duty, pp. 225, 249
  - „ imports, p. 230, E 17
  - „ milling, materials used, E 19
  - „ „ output, E 19
  - „ „ wages, E 19
  - „ production, p. 230
- Basils, production, p. 232, E 20
- Belting, leather, exports, p. 236, E 32
  - „ „ imports, p. 236, E 30
  - „ „ production, E 20
  - „ canvas and composition, imports, E 31
- Boot factories, employees, p. 235, E 18
  - „ „ materials used, p. 235, E 19
- Boot factories, output, p. 235, E 19
  - „ „ wages, E 19
- Boots, exports, p. 234, E 29
  - „ imports, p. 234, E 28
  - „ production, p. 235, E 20
- Branding of cattle, p. 229
- Calfskin, consumption, p. 228, E 20
- Calfskins, exports, p. 229, E 1, 2, 11
  - „ imports, p. 229, E 3, 4
- Calves, number, p. 227
- Cattle hides, exports, p. 229, E 1, 2, 12
  - „ „ imports, p. 229, E 3, 4, 15
  - „ number, p. 227, E 10
  - „ slaughtered, p. 228

- Chamois leather, imports, E 23  
 Clogs, imports, E 28
- Enamelled leather, imports, E 24  
 Extract, tanning, imports, E 17 (b)
- Fellmongering, employees, E 18  
 " materials used, E 19  
 " output, E 19  
 " wages, E 19  
 Footwear, imports, E 28  
 " exports, E 29
- Glacé kid, imports, p. 233  
 Goats, number, E 10  
 Goatskins, rough-tanned, imports, p. 233, E 23  
 Green hide leather, imports, E 22
- Hides, exports, pp. 225, 229, E 1, 2, 12, 13, 14  
 " imports, pp. 225, 229, E 3, 4, 15  
 " consumption in tanneries, pp. 228, E 20  
 Horse-hides, exports, E 1, 2, 13  
 " imports, E 3, 4  
 Horses, number, p. 227, E 10
- Kid leather, imports, E 26
- Lambs slaughtered, p. 232  
 Leather, production of tanneries, p. 232, E 20  
 " consumption, p. 232  
 " exports, p. 232, E 21  
 " imports, p. 232  
 " production, p. 232  
 " belting, imports, E 30  
 " exports, E 32  
 " manufactures, imports, E 33  
 " " exports, E 34  
 " " employees, E 18  
 " " materials used, E 19  
 " " output, E 19  
 " " wages, E 19  
 Live stock, E 10
- Manufactures of leather, exports, E 34  
 " imports, E 33
- Patent leather, imports, p. 233, E 24  
 Pelts, exports, p. 227
- Pelts, produced, p. 226  
 Persians, rough-tanned, imports, E 23  
 Pickled sheepskins, exports, E 6  
 imports, E 8
- Raw materials, consumption, p. 231  
 " production, p. 231
- Saddlery and harness, materials used, E 19  
 " output, E 19  
 " wages, E 19
- Sheep, number, p. 226, E 10  
 " slaughtered, p. 226  
 Sheep-pelts, consumption in tanneries, E 20  
 Sheepskins, exports, p. 226, E 1, 2  
 " imports, E 3, 4  
 " pickled, exports, E 6  
 " pickled, imports, E 8  
 " rough-tanned, imports, p. 223, E 23  
 " tanned, p. 227  
 " woolled, exports, p. 226, E 5  
 " woolled, imports, E 7
- Shoes, exports, E 29  
 " imports, E 28  
 " production of factories, E 20  
 Skins, consumption in tanneries, E 20  
 " exports, p. 225, E 1, 2, 14  
 " imports, p. 225, E 3, 4, 9, 15  
 Skivers, rough-tanned, imports, E 23  
 Slippers, exports, E 29  
 " imports, E 28  
 " production of factories, E 20  
 Sole leather, exports, p. 232, E 21 (a)  
 " imports, p. 233  
 " production, p. 232, E 20  
 Strap butts, imports, E 27
- Tanneries, p. 232  
 " employees, p. 232, E 18  
 " materials used, p. 232, E 19  
 " output, p. 232, E 19  
 " wages, E 19  
 Tanning bark, produced, p. 230  
 " exports, p. 230, E 17 (a)  
 " imports, p. 230, E 17  
 " imports, E 17 (b)  
 " materials, p. 239
- Woolled sheepskins, exports, E 5  
 imports, E 7

## SECTION F (NEW ZEALAND)

(p. refers to page; F refers to Table F at the end of the Section)

Anthrax, p. 258

Bags, leather, imports, F 43

Bark, imports, p. 259, F 24

„ used in tanneries, p. 259, F 9

Basils produced, p. 259, F 9

Belting leather, imports, p. 262, F 27, 41

„ exports, F 11

„ other than leather, imports, F 42

Boat factories, p. 261

„ leather used, p. 262, F 37

„ manufacturing, production statistics, F 8

Branding, p. 258

Bulls, numbers, F 5

Calfskins, rough-tanned, imports, p. 260, F 28

„ exports, pp. 255, 258, F 1, 7

„ tanned, exports, F 12

Calves, numbers, F 5

Cattle, numbers, p. 257, F 5

„ slaughtered, p. 257

Chamois leather, imports, p. 260, F 35

„ exports, p. 260, F 18

Cows, numbers, F 5

Dressed leather imports, p. 260, F 32, F 33

„ exports, p. 260, F 16

Enamelled and japanned leather, imports, F 34

„ exports, F 17

Fellmongering, production statistics, F 8

Glacé kid, imports, p. 260

Goat- and kidskins, rough-tanned, imports, F 30

„ exports, F 14

Harness leather, imports, F 27

„ and saddlery, imports, p. 262, F 40

„ production statistics, p. 622, F 8

Heifers, numbers, F 5

Hides, import regulations, p. 258

„ imports, p. 258, F 23

Hides, exports, pp. 255, 257, 258, F 1, 6

„ used in tanneries, F 9

„ regulations governing importation, Ap-

pendixes F 11 and 111

Horse-hides, imports, F 23

„ exports, F 6

Horses, number, p. 257

Japanned and enamelled leather, imports, F 34

„ exports, F 17

Lambs slaughtered, p. 255

Leather, belting, imports, F 41

„ exports, F 20

„ consumption, p. 261

„ dressed, imports, F 32, 33

„ exports, F 16

„ exports, pp. 255, 261, F 1, 19

„ goods, imports, F 45

„ manufacture, production statistics, F 8

„ imports, p. 261, F 36, 45

„ produced, p. 259, F 9

„ rough-tanned, imports, F 29

„ exports, F 13

Leggings produced, F 37

Opossum skins, exports, F 7

Patent leather, exports, p. 260, F 17

„ imports, p. 269, F 34

Pelts, imports, F 21, 22

„ pickled in fellmongers' establishments,

F 9

„ produced, F 9

Pickled sheepskins, exports, F 1, 4

Portmanteaux, imports, F 44

Saddlery and harness, imports, p. 262, F 40

„ production statistics, p. 262, F 8

Sheep- and lambskins, rough-tanned, imports,

p. 260, F 31

Sheepskins, pickled, exports, F 1, 4

„ without wool exports, pp. 255, 256,

- Sheepskins, woolled, exports, pp. 255, 256, F 1, 3  
 Sheep- and lambskins, rough-tanned, exports, F 15  
 Sheep, numbers, p. 255, F 2  
     " slaughtered, p. 255  
 Sheepskins fellmongered, F 9  
 Shoe manufacturing, production statistics, F 8  
 Skins, imports, F 21, 22  
     " regulations governing importation, Appendix F II and IH  
 Slippers produced, F 37  
 Sole leather, imports, p. 259, F 26  
     " exports, p. 259, F 10  
 Steers, numbers, F 5  
 Stock Act, Appendix F I  
 Tanneries, materials used in, pp. 255, 259  
 Tanning materials, imports, p. 259, F 24, 25  
     " consumed, F 259  
     " production statistics, F 8  
 Trunks, leather, imports, F 44  
 Welting leather, imports, F 27  
 Woolled sheepskins, exports, F 1, 3

## SECTION G (SOUTH AFRICA)

(p. refers to page; G refers to Table G at the end of the Section)

- Adulteration of leather, p. 295  
 Anthrax, p. 285  
 Bag production, G 27  
 Bags, imports, G 29  
 Bark, wattle, consumed in various countries, pp. 289, 290  
     " exports, p. 288, G 8  
     " used in tanneries, p. 288, G 12  
 Belting leather, imports, G 30  
 Boots, consumption of, p. 298  
     " exports, p. 298, G 24  
     " children's, imports, p. 297, G 20  
     " men's, imports, p. 297, G 22  
 Boot production, p. 296, G 19  
     " and shoe factories, p. 296, G 17  
     " and shoe factories, materials used, p. 296, G 18  
     " and shoe factories, value of buildings, G 17  
     " uppers produced in boot and shoe factories, G 19  
 Boots, import tariff, p. 298  
     " total imports, p. 297, G 24  
     " women's, imports, p. 297, G 21  
 Branding of hides, pp. 283, 285  
 Buildings, value of in harness, saddlery and leather goods, G 25  
 Chrome leather production, pp. 293, 294  
     " tanned leather produced in tanneries, G 13  
     " tanned leather used in boot and shoe factories, G 18  
     " tanned leather used in harness, saddlery and leather goods works, G 26  
     " tanned upper leather produced in tanneries, G 13  
 Donkeys, numbers of, G 1  
 Dressing leather production, p. 293  
 Dry hides, exports, G 3  
 Dyeing materials used in tanneries, G 12  
 Employees in boot and shoe factories, numbers of, G 17  
     " in harness, saddlery and leather goods works, G 25  
     " in tanneries, numbers of, G 11  
 Enamelled leather, imports, G 14  
 Extract, wattle, consumption in various countries, pp. 289, 290  
     " wattle, exports, p. 289, G 9  
     " used in tanneries, G 12  
 Flaying of hides, p. 283  
 Fuel and light in tanneries, value of, G 11  
 Gaiters, production in boot and shoe factories, G 19  
     " production, G 27

Gambier, imports, G 33  
 Goats, mortality of, p. 287  
 „ numbers of, p. 287, G 1  
 Goatskins, exports, 287, G 6  
 „ imports, G 33  
 „ supplies, p. 287  
 „ used in tanneries, p. 287, G 12  
 Greases used in leather production, G 32  
 „  
 Harness leather produced, p. 299, G 13  
 „ and saddlery production, p. 299, G 27  
 „ saddlery and leather goods works,  
 materials used, p. 299, G 26  
 „ saddlery and leather goods works,  
 numbers of, p. 299, G 25  
 Hides, consumption, p. 282  
 „ dry, exports, p. 282, G 3  
 „ exports, p. 281, 282, G 4  
 „ imports, G 33  
 „ supplies, p. 282  
 „ used in tanneries, p. 281, G 12  
 „ wet, exports, p. 282, G 2  
 Horse power in boot and shoe factories, G 17  
 „ „ in harness, saddlery and leather  
 goods works, G 25  
 „ „ in tanneries, G 11  
 Import tariff, p. 317  
 Imported leather used in boot and shoe fac-  
 tories, G 18  
 „ leather used in harness, saddlery and  
 leather goods works, G 26  
 „ materials used in boot and shoe fac-  
 tories, G 18  
 „ materials used in tanneries, G 12  
 Leather belting, imports, G 30  
 „ by measurement, used in boot and  
 shoe factories, G 18  
 „ by weight, used in boot and shoe  
 factories, G 18  
 „ consumption, p. 294  
 „ exports, p. 294  
 „ goods produced, value of, in harness,  
 saddlery and leather goods works,  
 G 27  
 „ imports, p. 294, G 14, 15, 16  
 „ manufactures, imports, G 31  
 „ production, p. 293, G 13  
 „ used in boot and shoe factories, G 18  
 „ used in harness, saddlery and leather  
 goods works, G 26

Legging production in boot and shoe factories,  
 G 19  
 Leggings, production, G 27  
 Light and fuel in tanneries, value of, G 11  
 Lime used in tanneries, G 12  
 Machinery in boot and shoe factories, value of,  
 G 17  
 „ in harness, saddlery and leather  
 goods works, value of, G 25  
 „ in tanneries, value of, G 11  
 Manufactures in boot and shoe factories, value  
 of, G 19  
 „ in tanneries, value of, G 13  
 Materials used in boot and shoe factories, G 18  
 „ used in harness, saddlery and leather  
 goods works, value of, G 26  
 „ used in tanneries, value of, G 12  
 Men's boots, imports, G 22  
 Mimosa bark, p. 288  
 Mineral tanning materials used in tanneries,  
 G 12  
 Mules, numbers of, G 1  
 Myrobalans, imports, G 33  
 Oils used in tanneries, G 12  
 Patent leather, imports, G 14  
 Pigskin leather, imports, G 15  
 Portmanteaux production, G 27  
 Production in boot and shoe factories, G 19  
 „ in harness, saddlery and leather  
 goods works, G 27  
 „ of tanneries, G 13  
 Repair work in boot and shoe factories, G 19  
 „ „ done in leather factories, G 27  
 „  
 Saddlery and harness, exports, G 33  
 „ imports, p. 299, G 28  
 Sealskins, exports, G 7  
 Sheep, mortality of, p. 287  
 „ numbers of, p. 287, G 1  
 Sheepskins used in tanneries, G 12  
 „ exports, p. 287, G 5  
 „ imports, G 33  
 „ supplies, p. 287  
 Skins, exports, G 5, 6, 7  
 „ imports, G 33

- Slipper production in boot and shoe factories, G 19
- Slippers, imports, G 23
- Sole leather produced in tanneries, G 13
- "    "    production, p. 293
- South African—
- Leather used in boot and shoe factories, G 18
- "    "    used in harness, saddlery and leather goods works, G 26
- Materials used in boot and shoe factories, G 18
- "    "    used in tanneries, G 26
- Sumach, imports, G 33
- Tallow used in tanneries, G 12
- Tanneries, numbers of, p. 292, G 11
- "    "    production of, p. 293, G 13
- Tannery buildings, value of, G 11
- Tanning materials used in tanneries, p. 293, G 12
- Tariff, import, p. 317
- Trunks, imports, G 29
- Upper leather produced in tanneries, G 13
- Valonia, imports, G 33
- Vegetable tanned leather used in boot and shoe factories, G 18
- "    "    tanned leather used in harness, saddlery and leather goods works, G 26
- "    "    tanned leather produced in tanneries, G 13
- "    "    tanned upper leather produced in tanneries, G 13
- Wages in boot and shoe factories, amount of, G 17
- "    "    in harness, saddlery and leather goods works, amount of, G 25
- "    "    in tanneries, amount of, G 11
- Wattle bark, pp. 288-292
- "    "    area under cultivation, G 10
- "    "    exports, G 8
- "    "    used in tanneries, G 12
- "    "    extract, pp. 288-292
- Women's boots, imports, G 21



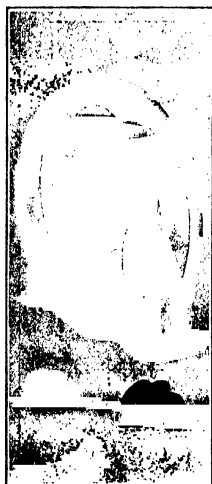
# WESTMINSTER BANK

LIMITED

LONG AND INTIMATE ASSOCIATIONS  
with the British Dominions, combined with a world-  
wide network of agencies, have rendered the Bank  
a leading medium in the efficient conduct of  
Empire Trade

Head Office: 41, LOTHBURY, LONDON, E.C.2

Foreign Branch Office: 82 CORNHILL, LONDON, E.C.3



## Hydraulic Leathers

Hydraulic leather packings of every type—Ram or  
"U" Leathers, Pump or Hat Leathers, Cup or  
Bucket Leathers, and special leathers of any kind.

We only use the finest selected hides and we  
GUARANTEE the supreme quality of our leathers.  
The best leathers are the cheapest in the long run.

WRITE FOR PRICE LIST AND FREE SAMPLE.

**ROSE, DOWNS & THOMPSON, LTD.**

Old Foundry, HULL.

Eastern Office: ESTABLISHED 1777.

London:

29 Canton Road, SHANGHAI.

28 Victoria Street, S.W. 1

OTHER SPECIALITIES

**OIL MILL MACHINERY:**

Modern plant for the manufacture of all vegetable oils.

**GRAB DREDGERS AND EXCAVATORS**

**GEAR WHEELS. IRON CASTINGS**

(i)



# OILS AND FATS

FOR THE

# LEATHER TRADE

MANUFACTURERS OF THE WELL-KNOWN  
Fat Liquors and Oiling Off Products  
**KROMLIC, TANLIC,**  
**: & CODLIC :**  
GEBOXOLINE FINISH for Glacé Kid, Box Calf, etc.

Also finest grades of  
Golden Finishing Oils      Stuffing Compounds  
Neatsfoot Oils      Sulphonated Oils,  
etc. etc.

**STERNS Ltd.**

Works: MILLWALL, E.

16 Finsbury Square

LONDON, E.C. 2.

Telegrams:

"CENTUMVIR,

TELEW, LONDON."

Telephone:

CLERKENWELL 1875.

(6 lines).

Cables: "CENTUMVIR, LONDON."

# BRITISH LEGION

PATRON: H.R.H. THE PRINCE OF WALES

PRESIDENT: FIELD-MARSHAL EARL HAIG, K.T.

## EMPLOYERS: PLEASE NOTE!

The British Legion has on its books  
thousands of first-rate men earnestly  
seeking work

Please ask your Employment  
Manager to give the Legion a trial

Head Office: 26 ECCLESTON SQUARE, LONDON, S.W.1

## CLASSIFIED INDEX TO ADVERTISERS.

ACIDS	PAGE	BOX & WILLOW CAFE	PAGE	"CONFECTIONERY JOURNAL, THE"	PAGE
C. Page & Co. Ltd.	15	Barrow, Hepburn & Gale, Ltd.	17		24
BANKS		W. & J. Martin	3	CURRIERS	
Lloyds Bank Ltd.	1	W. & H. Miers, Ltd.	9	Barrow, Hepburn & Gale, Ltd.	17
Westminster Bank Ltd.	10	Robson Leather Co. Ltd.	23	J. Hardy Smith & Sons	33
Williams Deacon's Bank Ltd.	11	R. Thackray & Sons, Ltd.	33	W. & J. Martin	3
BELTING LEATHER MANUFACTURERS		"BRITISH BAKER, THE"	24	W. Walker & Sons, Ltd.	19
Barrow, Hepburn & Gale, Ltd.	17	BRITISH LEGION	(iii)	DRESSERS OF SHEEPSKINS	
Outra Belting & Rubber Co.	28	CHEMICALS		Silvester Litton, Ltd.	14
Spartan Mfg. Co. Ltd.	26	Brown & Forth, Ltd.	26	DRESSING LEATHER	
W. Walker & Sons, Ltd.	19	C. Page & Co. Ltd.	15	Barrow, Hepburn & Gale, Ltd.	17
BOARD MAKERS		CHROME UPPER LEATHER		British Leather Co.	7
J. Dickinson & Co., Ltd.	8	Barrow, Hepburn & Gale, Ltd.	17	Highfield Tanning Co. Ltd.	10
BOOKBINDING LEATHER		The Highfield Tanning Co. Ltd.	10	W. Walker & Sons, Ltd.	19
Silvester Litton, Ltd.	14	W. L. Ingle, Ltd.	11	DYES	
BOOTLINING LEATHER		W. & J. Martin	3	British Dyestuffs Corp. Ltd.	18
Silvester Litton, Ltd.	14	W. & H. Miers, Ltd.	9	Brown & Forth, Ltd.	26
BOX SIDES		W. E. & J. Pebody, Ltd.	23	C. Page & Co., Ltd.	15
Barrow, Hepburn & Gale, Ltd.	17	Robson Leather Co.	2	EXTRACTS FOR TANNING	
W. L. Ingle, Ltd.	11	R. Thackray & Sons, Ltd.	33	H. M. McArthur & Co., Ltd.	27
W. & J. Martin	3	CHROME MIXERS		Natal Tanning Extract Co. Ltd.	29
W. & H. Miers, Ltd.	9	Outra Belting & Rubber Co.	28	FELLMONGERS	
W. E. & J. Pebody, Ltd.	23	Spartan Mfg. Co. Ltd.	26	Strong, Rawle & Strong, Ltd.	31
Robson Leather Co. Ltd.	23	CLOTHING LEATHER			
R. Thackray & Sons, Ltd.	33	Barrow, Hepburn & Gale, Ltd.	17		
		W. Walker & Sons, Ltd.	19		

# CLASSIFIED INDEX TO ADVERTISERS—Continued.

"FERTILISER AND FEED- ING STUFFS JOURNAL, THE " . . . . . 24	LEATHER FACTORS * Barrow, Hepburn & Gale, Ltd., 17 Boutcher, Mortimore & Co., Ltd. 32 J. Hardy Smith & Sons . . . 33 Malcolm Ingils & Co . . . 22 Schrader, Mitchell & Weir . . 5	SPLIT HIDES Barrow, Hepburn & Gale, Ltd., 17 British Leather Co. . . . . 6 Schrader, Mitchell & Weir . . 5 Highfield Tanning Co. . . . 16 W. Walker & Sons, Ltd. . . 10
FOOTBALL LEATHER Barrow, Hepburn & Gale, Ltd. 17 Highfield Tanning Co. Ltd. . 16 W. Walker & Sons, Ltd. . . 10	LEATHER MACHINERY MANUFACTURERS Turner Tanning Machinery Co. 20	SUÈDE LEATHER W. E. & J. Pebody, Ltd. . . 23
FURRIERS T. Dyer & Co., Ltd. . . . 33 G. Smith & Sons, Ltd. . . . 10	LEATHER MERCHANTS Barrow, Hepburn & Gale, Ltd. 17 Malcolm Ingils & Co. . . . 22 Schrader, Mitchell & Weir . . 5 W. Walker & Sons, Ltd. . . 10	STRAP BUTTS H. Densham & Son, Ltd. . . 27 Highfield Tanning Co. Ltd. . 16 W. Walker & Sons, Ltd. . . 10
GEAR WHEELS Rose, Downs & Thompson, Ltd. (i)	LEATHERITE. (See Rubber Manufacturers.)	SYNTHETIC TANS F. M. McArthur & Co., Ltd. . 27
GLACÉ KID MFRS. (Black and Colours) British Chrome Tanning Co. (1909) Ltd. . . . . 6	OIL MILL MACHINERY MANUFACTURERS Rose, Downs & Thompson, Ltd. (i)	TANNERS Barrow, Hepburn & Gale, Ltd. 17 British Leather Co. . . . . 7 British Chrome Tanning Co. Ltd. 6 H. Densham & Sons, Ltd. . . 27 Highfield Tanning Co. Ltd. . 16 W. L. Ingle, Ltd. . . . . 11 W. & J. Martin . . . . . 3 J. M. McArthur & Co., Ltd. . 27 W. & H. Miers, Ltd. . . . . 9 Penketh Tanning Co. Ltd. . . 13 W. E. & J. Pebody, Ltd. . . 23 Robson Leather Co. Ltd. . . . 2 Silverstar Tannery, Ltd. . . . 14 R. Thackray & Sons, Ltd. . . 33 W. Walker & Sons, Ltd. . . 10 Western Tanning Co. . . . . 21
GLYCERINE MANUFACTURERS Lever Bros. . . . . 9	OILS Brown & Forth Ltd. . . . . 26 Calder Mersey Extract Co. . . 25 Sterns Ltd. . . . . (ii)	TANNERS' OILS Brown & Forth, Ltd. . . . . 26 Calder Mersey Extract Co. . . 25 Sterns Ltd. . . . . (ii)
GRAB DREDGERS AND EXCAVATORS Rose, Downs & Thompson, Ltd. (i)	PAPER MAKERS J. Dickinson & Co., Ltd. . . 8	TANNING MATERIALS Boutcher, Mortimore & Co., Ltd. 32 Calder Mersey Extract Co. . . 25 Natal Tanning Extract Co. Ltd. 20 F. M. McArthur & Co., Ltd. . 27
HIDES AND SKINS Chadwick & Hollebony . . . 28 London Butchers Hide & Skin Co. Ltd. . . . . 33 Strong, Rawie & Strong, Ltd. 31	PICKING BAND LEATHER Spartan Mfg. Co. Ltd. . . . 29 W. Walker & Sons, Ltd. . . 10	TANNING MACHINERY Turner Tanning Machinery Co. 20
HYDRAULIC LEATHERS Rose, Downs & Thompson, Ltd. (i) Spartan Mfg. Co. Ltd. . . . 26 W. Walker & Sons, Ltd. . . 10	PRINTERS Wm. Brendon & Son, Ltd. . . 30	TRADE JOURNALS McLaren & Sons, Ltd. . . . . 24 "Shoe and Leather News" . . 12
IMPORTERS OF HIDES, SKINS AND LEATHER African & Eastern Trade Corp. 20 Boutcher, Mortimore & Co., Ltd. 32 Levant Co. Ltd. . . . . 31 Malcolm Ingils & Co . . . . 22 Schrader, Mitchell & Weir . . 5	ROLLER LEATHER Silverstar Tannery, Ltd. . . . 14 W. Walker & Sons, Ltd. . . 10	UPPER LEATHER Barrow, Hepburn & Gale, Ltd. 17 The Highfield Tanning Co. Ltd. 16 W. L. Ingle, Ltd. . . . . 11 W. & J. Martin . . . . . 3 W. & H. Miers, Ltd. . . . . 9 W. E. & J. Pebody, Ltd. . . 23 Robson Leather Co. . . . . 2 R. Thackray & Sons, Ltd. . . 33
"INDIA-RUBBER JOURNAL, THE " . . . . 24	RUBBER MANUFACTURERS Northern Rubber Co., Ltd. . . 32 Outra Belting & Rubber Co. . 28	WALRUS LEATHER Penketh Tanning Co. Ltd. . . 13
INSURANCE COMPANIES Atlas Assurance Co. Ltd. . . 6	SHOE MANUFACTURERS British & Colonial Shoe Co. Ltd. 4	"WASTE TRADE WORLD, THE " . . . . . 24
IRON CASTINGS Rose, Downs & Thompson, Ltd. (i)	SKINS Chadwick & Hollebony . . . 28 London Butchers Hide & Skin Co. Ltd. . . . . 33 Strong, Rawie & Strong, Ltd. 31	SOLE LEATHER British Leather Co. . . . . 7 Barrow, Hepburn & Gale, Ltd. 17 H. Densham & Son, Ltd. . . 27 Highfield Tanning Co. Ltd. . 16 W. L. Ingle, Ltd. . . . . 11 Penketh Tanning Co. Ltd. . . 13 W. Walker & Sons, Ltd. . . 10 Western Tanning Co. . . . . 21
KROLOLINE AND WHITCOL GREASE British Dyestuffs Corp. . . . 18	SODIUM BISULPHITE C. Page & Co., Ltd. . . . . 15	(iv)
LEATHER EMBOSING PLATES MFRS. Nickeloid Electrotype Co. Ltd. 131	SOLE LEATHER British Leather Co. . . . . 7 Barrow, Hepburn & Gale, Ltd. 17 H. Densham & Son, Ltd. . . 27 Highfield Tanning Co. Ltd. . 16 W. L. Ingle, Ltd. . . . . 11 Penketh Tanning Co. Ltd. . . 13 W. Walker & Sons, Ltd. . . 10 Western Tanning Co. . . . . 21	
LEATHER EXPORTERS Barrow, Hepburn & Gale, Ltd. 17 Highfield Tanning Co. Ltd. . 16 J. Hardy Smith & Sons . . . 33 Malcolm Ingils & Co. . . . 22 Penketh Tanning Co., Ltd. . 13 Schrader Mitchell & Weir . . 5 W. Walker & Sons, Ltd. . . 10		



# LLOYDS BANK LIMITED.

HEAD OFFICE: LONDON, E.C. 3.

OVER 1,600 OFFICES IN ENGLAND & WALES,  
and several in India, Burmah and Egypt.

COLONIAL & FOREIGN DEPARTMENT: 20, KING WILLIAM ST., LONDON, E.C. 4.

EASTERN DEPARTMENT: 77, LOMBARD ST., LONDON, E.C. 3.

Lloyds Bank has Agents and Correspondents throughout the British Empire and in all parts of the world. It is a large Shareholder in the following Banks, with which it is closely associated:—

THE NATIONAL BANK OF SCOTLAND LIMITED.  
BANK OF LONDON AND SOUTH AMERICA LIMITED.  
LLOYDS & NATIONAL PROVINCIAL FOREIGN BANK LTD.

THE NATIONAL BANK OF NEW ZEALAND LIMITED.  
BANK OF BRITISH WEST AFRICA, LIMITED.  
THE BRITISH ITALIAN BANKING CORPORATION, LTD.

# WILLIAMS DEACON'S BANK

LIMITED

*Members of the London Bankers' Clearing House.*

**Total Assets, December 31st, 1923: £40,716,804.**

**LONDON OFFICE: 20 BIRCHIN LANE, E.C. 3**

And 175 Offices in London, Lancashire, Yorkshire, Cheshire, Derbyshire, Staffordshire, and North Wales.

**MANCHESTER OFFICE: MOSLEY STREET.**

EXECUTORSHIPS AND TRUSTEESHIPS UNDERTAKEN.

EVERY DESCRIPTION OF BRITISH AND FOREIGN BANKING BUSINESS TRANSACTED.  
IMPORTS AND EXPORTS FINANCED.

ACCEPTANCE CREDITS AND FORWARD CONTRACTS ARRANGED.

THE BANK IS PREPARED TO ACT AS AGENT FOR FOREIGN BANKS  
ON AGREED TERMS.

FOREIGN DEPARTMENTS: 20 BIRCHIN LANE, LONDON, E.C. 3.  
MOSLEY STREET, MANCHESTER.

**AGENTS FOR THE BRITISH OVERSEAS BANK, LTD.**

**THE ROBSON LEATHER CO., LIMITED**  
Tanners and Curriers

**OSHAWA**

CANADA

Manufacturers of

Established 1866

**Black Beauty**

Brand

Patent Leather

**ROBUCK** sides  
in all the latest  
and popular shades



**BLACK** and  
**COLOURED**  
Box Sides

CABLE ADDRESS

"ROBSONLEA. OSHAWA"

CODES { LIEBER'S  
BENTLEY'S  
A.R.C. FIFTH EDITION  
TANNERS' COUNCIL

AGENTS :

**Henry Boston & Sons, Ltd.**  
LIVERPOOL, ENGLAND

**Newcastle Leather Co.**  
74 Rue du Temple, PARIS, FRANCE

# SCOTCH GRAIN

Butts

Sides

## W. & J. MARTIN

Chrome Tanners

### GLASGOW



63 Brunswick Street

GLASGOW

Chrome Sides

Black and Brown

Scotch Gorse Calf

Scotch Moor Calf

Chrome Box Calf

Chrome Willow Calf

Chrome Sole Bends

Chrome Harness Backs

Russet Lining Leathers

*The*  
**BRITISH & COLONIAL SHOE CO. LTD.**  
*was established over 60 years ago, with the  
 primary object, as its name implies, of trading  
 its productions with the Empire . . . . .*

**"Yvonne"**  
PRONOUNCED E-VON

*is the trade mark  
 under which those  
 productions are  
 distributed and  
 guaranteed . . .*



**"YVONNE" LADIES' FINE GRADE  
 FOOTWEAR IS MADE ON THE  
 MACHINE-SEWN PRINCIPLE IN  
 ALL THE PREVAILING . . .  
 FASHIONS AND MATERIALS .**

*It is recognized as the highest  
 standard of English shoe . . .  
 manufacture, & offers exceptional  
 values which are the result of  
 perfect factory organization and  
 long experience . . . . .*

*Enquiries should be  
 addressed direct to*

*The*  
**BRITISH & COLONIAL SHOE CO. LTD.**  
**BLABY . . LEICESTER, . . ENGLAND**  
*Cables: ABC, 5th Edition. Tel.: "British, Blaby."*

**EXHIBITING AT THE "EMPIRE EXHIBITION," BOOT  
 AND SHOE SECTION. STAND No. 507**

**SCHRADER, MITCHELL & WEIR**  
**LEATHER AND HIDES**  
**FACTORS AND MERCHANTS**  
**IMPORTERS AND EXPORTERS**

*Codes :*  
Widebrook ABC, 5th Edition  
Marconi  
American Tanners' Council  
Code

All classes of Sole Leathers

Bends, Backs, Sides, Shoulders and  
Bellies, in British, Colonial and  
Foreign tannages

Rough Dressing Leather, Butts,  
Backs, Split Hides and Fleshes

Scotch and English Tanned Sheep-  
skins in large variety

Enquiries solicited and promptly  
attended to

Head Office:  
**114 HOWARD STREET, GLASGOW**  
Branch Warehouses at  
**LONDON, MANCHESTER, LEICESTER & NORTHAMPTON**  
Cable Address: "SCHRADER"



SUPPORT TRADE WITHIN THE EMPIRE

# GLACÉ KID

MANUFACTURED BY

**The BRITISH CHROME TANNING CO. (1909) LTD.**

**NORTHAMPTON, ENGLAND**

*IS GUARANTEED ALL-BRITISH CHROME LEATHER*

BLACK

HOME

COLOURS

EXPORT



**NO QUALITY LIKE BRITISH CHROME QUALITY**

*Used by the leading Boot Manufacturers in the United Kingdom and throughout the Empire*

AGENCIES AT

WELLINGTON AND CHRISTCHURCH, NEW ZEALAND  
MELBOURNE, AUSTRALIA  
PORT ELIZABETH & CAPE TOWN, SOUTH AFRICA, ETC.

*Codes: A B C, 5th Edition  
Bentley's*

*Telegrams: Chrome  
Northampton.*

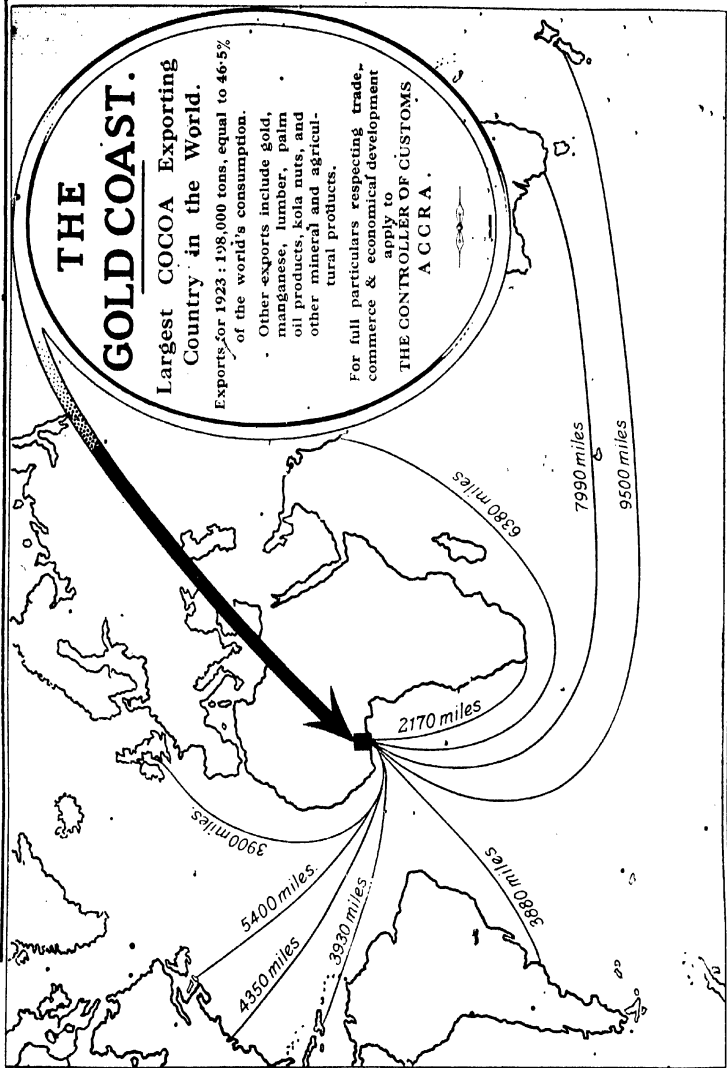
# THE GOLD COAST.

Largest COCOA Exporting  
Country in the World.

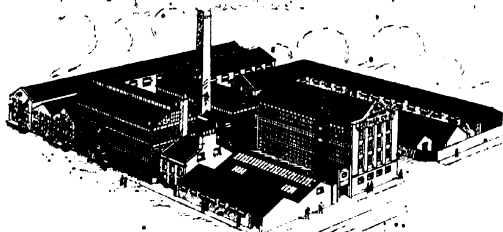
Exports for 1923 : 198,000 tons, equal to 46.5%  
of the world's consumption.

Other exports include gold,  
manganese, lumber, palm  
oil products, kola nuts, and  
other mineral and agricul-  
tural products.

For full particulars respecting trade,  
commerce & economical development  
apply to  
THE CONTROLLER OF CUSTOMS  
ACCRA.







TRANMERE TANNERY, BIRKENHEAD.

## Rough Dressing Leather

Split Hides	Rough Shoulders
Dressing Hides	Shoulder Grains
Harness Backs	Bated Belly Grains
Welting Shoulders	Rough and Bated Bellies
Rough Butt Splits	

SPECIALITY:

*Split Hides for Upholstering, Motor and Furniture Hides*

## Sole Leather

Bends	Bellies	Shoulders
ENGLISH, WET SALTED AND DRY HIDE. All classes and weights.		
Rolled Engine Backs	Pump Butts	

## Raw Salted Butt Splits

# The British Leather Co. LTD.

BIRKENHEAD, near LIVERPOOL, England.

CABLES AND TELEGRAMS: "HIDES," BIRKENHEAD.

# COLNE VALLEY PARCHMENT

THE PRACTICAL PAPER FOR COMMERCIAL STATIONERY

*PURPOSE*—Colne Valley provides a back-ground for business letters that rings true—draws attention—and compels respect.

*QUALITY*—Colne Valley is a Tub-Sized, Air Dried paper, and is manufactured from first grade materials by skilled craftsmen.

*CHARACTER*—Colne Valley is genuine, nothing fancy, elaborate, or unnecessary. Just clear, straightforward, British.

*This paper gives perfect results from Printing or Die Stamping. Your Printer or Stationer will be pleased to submit specimens of Letter Headings, Invoice Forms, etc. Envelopes to match in all commercial sizes.*

## JOHN DICKINSON & CO. LTD.

*Paper and Board Makers*

CROXLEY MILLS, WATFORD, HERTS.



# LEVER'S GLYCERINE

For all industrial uses

In three Grades **Double Distilled Chemically Pure**

**1260 Sp. Gr.**

British Pharmacopoeia quality.

**Industrial White Glycerine**

**1260 Sp. Gr.**

**Refined Pale Straw Industrial Glycerine**  
**1260 Sp. Gr.**

We shall be glad to forward samples and quotations to any who may be interested in the numerous uses of Lever's Glycerine for Industrial purposes.

*In 10, 5, 2½ and 1 cwt. drums,  
and also 56, 28 and 14 lb. tins.*

Samples and quotations on request

**LEVER BROTHERS,  
LIMITED,**

Glycerine Department D,  
**LEVER HOUSE, BLACKFRIARS, E.C.4.**  
L.G. 6a.

# ATLAS ASSURANCE CO. LTD.



Head Office:  
92 CHEAPSIDE,  
LONDON, E.C. 2.

ESTABLISHED  
1808.

**INSURANCE BUSINESS  
OF  
EVERY KIND  
TRANSACTION**

APPLY TO THE COMPANY'S  
BRANCHES AND AGENCIES  
THROUGHOUT THE WORLD

**W. & H. Miers**  
*Ltd.*  
**LEEDS.**

Calf and Side Leathers  
for Boot Uppers and  
for the Fancy  
Leather  
Trade.

SPECIALITY:  
**EMBOSSING & FINISHING  
FOR THE TRADE.**

STAND No. O.583  
At British Empire Exhibition.

London

Glasgow

# GEORGE SMITH & SONS, LTD.

MEMBERS OF  
THE  
LONDON  
FUR TRADE  
ASSOCIATION

## *Wholesale Furriers*

(ESTABLISHED 1797)

9, 10, 11, Watling Street,  
**LONDON.**

TELEPHONE: CITY 9117 (2 lines).

Manchester

TELEGRAMS  
LONDON WELFARE CENT (RECKONED AS ONE WORD)  
GLASGOW  
MANCHESTER  
DUBLIN

Dublin

**W. L. INGLE Limited**

**CHURWELL,  
LEEDS**

**Chrome & Vegetable Tanners.**

*Specialities:*

**CHROME BOX SIDES**

**CHROME SOLE LEATHER**

**Vegetable Tanned**

**DRIED HIDE BENDS**

**BELLIES & SHOULDERS.**

Telegraphic Address : "Curriers, Beeston-Yorks."

Telephones : 260 & 261 Morley.



# THE SHOE & LEATHER & ALLIED TRADES NEWS

TELEGRAMS:  
"ALSHUNUZE LONDON"

TELEPHONE:  
CLERKENWELL 1898.

HEAD OFFICE- SPENCER HOUSE, SOUTH PLACE, FINSBURY, E.C.2.

*Largest Circulation than any other*  
**SHOE & LEATHER TRADE WEEK**  
*IN THE WORLD*

**Net Sales Exceed**

**12,000**

**60,000 COPIES PER WEEK**

*Space Rates Application*

**The Best Advertising Medium**

**Wherever a Campaign can be Effected!**

# THE PENKETH TANNING

CO. LTD.

Near WARRINGTON, ENG.

Telephone  
115 Warrington.

Code  
A B C, 5th Edition.

Telegrams  
"TANNERY, PENKETH."

## PRODUCTIONS

Close Rounded, Sole Bends, from English Wet-salted and  
Dry Hides

Pinned Shoulders and Bellies

Shoulder and Belly Grains for Dressing

Rough Dried Shoulders and Pinned Bellies for Welting

Sized and Rolled Shoulder and Belly Fleashes

Walrus for Polishing Trades

Specially Tanned Belly Grains for Toe Puffs (all substances)



**EXPORT ENQUIRIES SOLICITED**

Established  
1821

✿ SILVESTER LITTON LTD. ✿

✿ Tanners & Dressers of Sheepskins ✿



Specialities :

*Roller Leather for Cotton Spinning*

✿ *Natural and Coloured Leather for Boot Linings* ✿  
*Bookbinding and General Fancy Trade*

*Chrome and Semi-Chrome Clothing Sheep*



*ENQUIRIES FOR PRICES and PARTICULARS*

ROE ACRE TANNERY,  
HEYWOOD,  
Lancashire, ENGLAND.

# CHEMICALS For Leather

Telegrams:  
"Paganiini,"  
London.  
"Paganiini,"  
Manchester.  
"Paganiini,"  
Glasgow.

ACETIC FORMIC ACIDS  
ACETIC OXALIC  
SULPHATE OF ALUMINA.

BICHROMATE OF POTASSIUM.

" OF SODIUM.

AMMONIUM CHROME ALUM.

POTASSIUM " "

SALAMMONIAC.

EPSOM SALTS.

ANILINE  
DYES.

GLAUBER  
SALTS.

SODIUM FORMATE.

SODIUM PHOSPHATE.

TANNING EXTRACTS.

SODIUM  
HYPOSULPHITE.  
SULPHIDE. SULPHITE.  
BISULPHITE.  
PYROPHOSPHATE.

Manchester:  
422/425 Royal Exchange.

Glasgow:  
31 St. Vincent Place.

HOME TRADE AND

# EXPORT

C.I.P. QUOTATIONS TO ANY PORT IN THE WORLD.

**CHAS. PAGE & Co. LTD.**  
37/39 King William Street, London, E.C. 4.

FULL PRICE LIST ON APPLICATION.



# HIGHFIELD STANDARDISED LEATHERS

The only way to make sure of producing a finished article of uniform merit, is to start with raw material of proved value. Many experienced and successful shoe manufacturers and other leather workers now use "Highfield." They find the particular grade which suits their trade and stick to it. They find it pays them because the quality is dependable and the prices competitive.

*Write for booklet on current tanning  
methods enclosing business card.*

THE  
HIGHFIELD TANNING CO. LTD.  
RUNCORN

TANNERS, MERCHANTS AND FACTORS



**"BERMOX" FULL CHROME  
BOX SIDES.**

**ENGLISH & W/S BENDS.  
C.F. BOX & WILLOW CALF.  
AUSTRALIAN & AMERICAN  
LEATHER.**

**47 WESTON ST., BERMONDSEY, LONDON, S.E.1.**

Telegrams: "Handbarrow, London." Telephones: Hop 4574 (5 lines)



# DYESTUFFS FOR LEATHER; FURS, FEATHERS, ETC.

We are manufacturers of a full range of

## DYESTUFFS

for the dyeing of all classes of

**Leather, Furs, Feathers, etc.**

We are sole manufacturers of

**KROMOLINE AND WHITCOL GREASE  
FOR TANNERS.**

**BRITISH DYESTUFFS CORPORATION,**  
LIMITED,  
70 SPRING GARDENS, MANCHESTER.

**Branches in British Isles :**

Belfast.	Bradford.	Glasgow.	Leicester.	London.
----------	-----------	----------	------------	---------

**Overseas Branches and Agencies :**

Ahmedabad.	Bruxelles.	Delhi.	Madras.	Paris.	Shanghai.
Amritsar.	Calro.	Enschede.	Madura.	Port Alegre.	Sydney.
Barcelona.	Calcutta.	Guimaraes.	Melbourne.	Renaix.	Tientsin.
Bombay.	Cawnpore.	Hankow.	Milan.	Rio de Janeiro.	Toronto.
Boston.	Dairen.	Hong Kong.	Montreal.	Sao Paulo.	Yokohama.
		Kobe.	Multan.		

**Factories :**

Dalton and Turnbridge Works, Huddersfield,  
Blackley and Clayton Works, Manchester,  
and Ellesmere Port.

ESTABLISHED 1828



## NOTHING TAKES THE PLACE OF LEATHER

### A HUNDRED YEARS' EXPERIENCE

in the manufacture of leather, and experimenting with it in every state from the raw-hide to the finished product—always with the latest methods and the most improved machinery at our disposal—have given us that complete knowledge of the article which ensures you getting the right leather, and the best leather for your purpose, at prices which cannot be improved upon.

### AMONG OUR SPECIALITIES ARE

**ROSE HILL TANNAGE PINNED SOLE BENDS**, made in best English and Wet-salted hides.

**ROSE HILL TANNAGE PINNED BELLIES** for Insoles and Stiffeners for boots and shoes.

**ARMY AND FRICTION BENDS**: stout, firm bends, used for Army boots.

**SPLIT HIDES** for upholstering motor cars and best seatings.

**ROUGH DRIED BELLIES** for light shoes, fancy belts, bags, braces.

**ROSE HILL TANNAGE PINNED SHOULDERS**, suitable for Insoles and Slipper soles.

**RAILWAY TANNAGE PINNED SOLE BENDS**: a good tannage for manufacture and repair of boots and shoes.

**HIGHLAND OX HARNESS BACKS** for the very best brown and black harness leather.

**ROUGH DRIED SHOULDERS**: best welting for boots and shoes, leggings, belting, etc.

**BELLY GRAINS**: fancy leather, for shoes, purses, bags, etc.

FOOTBALL HIDES      WELTING      BELTING

EXPORTERS TO ALL PARTS OF THE WORLD.

**WILLIAM WALKER & SONS LTD.**  
**BOLTON . . . : . ENGLAND**



# LEATHER MANUFACTURERS' MACHINERY



**T**HE world's standard of leather producing machinery has been set and is maintained by the firm of TURNER.

All recent inventions which facilitate the production of leather in all its various stages, are embodied in TURNER built machines.

Thousands of our constructions are in daily use in many of the most prominent tanneries and currying establishments of the United Kingdom, India, Australia, South Africa and, in fact, almost every country of the world.

Enquiries for any type of leather producing machine or complete plant, will be courteously and promptly dealt with.

---

THE **TURNER TANNING MACHINERY CO** LTD.

(Incorporating Thos. Haley & Co., Ltd.)

Codes —  
Marconi, Western  
Union Universal  
Edition, Western  
Union 5 letter and  
Bentleys.

**BRAMLEY,  
LEEDS,  
ENGLAND.**

Telegrams :  
"SERIAL  
LEEDS."  
Telephone :  
2,  
Stanningley.

*Best Chrome Sole Leather*



*The Western Tanning Co.  
Bristol*

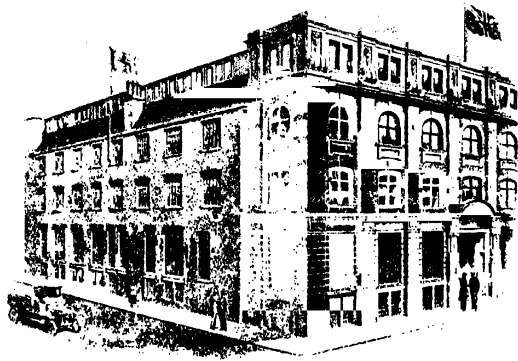


GLASGOW

## MALCOLM INGLIS AND CO.

Importers and Exporters of  
all kinds of Leather, Hides,  
Skins & Tanning materials.

---



LONDON



MANCHESTER



NORTHAMPTON

AND ALL THE OTHER TRADE CENTRES.

---

W. E. & J. PEBODY

LTD.

CHROME TANNERS

BRITISH  
MANUFACTURE

*Specialities*

Willow Calf

London Calf

(Plain Russia Finish)

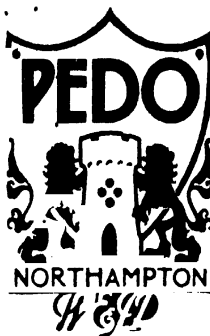
Matt Calf

Box Calf and

Suede Calf

in White and

Colours



*Specialities*

Dull Sports Calf

Black & Brown

Pedo Hide Sides

Black & Brown

*In Natural and*

*Printed Grains*

*Office and Warehouse*

Lower Mounts, NORTHAMPTON

Telephone 195

*Tannery*

OLNEY

::

BUCKS

Telephone 11

## **"THE WORLD OUR MARKET"**

### **INTRODUCING 5 TRADE THE BIG JOURNALS**

#### **BRITISH BAKER**

ESTABLISHED 1885  
PUBLISHED WEEKLY

Price, 3d. per copy. Annual subscription, 17s. 6d. post free.

The Organ of the Bread, Biscuit, Pastry, Cake, and Catering Trades. Caters for every branch of these industries—**Manufacturers, Wholesalers, and Retailers.**

#### **CONFECTIONERY JOURNAL**

ESTABLISHED 1885  
PUBLISHED WEEKLY

Price, 2d. per copy. Annual subscription, 12s. 6d. post free.

The Organ of the Confectionery, Chocolate, and Fruit-Preserving Trades. Caters for every branch of these industries—**Manufacturers, Wholesalers, and Retailers.**

#### **FERTILISER AND FEEDING-STUFFS JOURNAL**

Price, 4d. per copy. Published Fortnightly. Annual subscription, 10s. post free.

The International Organ of the Fertilisers and Feeding-Stuffs Industries. Caters for the **Manufacturer, Importer, Exporter, and Merchant** only—not for the Consumer of Fertilisers and Feeding-Stuffs.

#### **INDIA-RUBBER JOURNAL**

ESTABLISHED 1884  
PUBLISHED WEEKLY

Price, 4d. per copy. Annual subscription, £1 post free.

The International Organ of the Rubber, Asbestos, and Gutta-percha Trades. Caters for every branch of these industries—**Planting, Manufacturing, Wholesaling, and Retailing.**

#### **WASTE TRADE WORLD**

PUBLISHED WEEKLY

Price 2d. per copy. Annual subscription, 12s. 6d. post free.

The International Organ of the Waste, Scrap, and By-Products Industries. Caters for every branch of these industries. Special Overseas Numbers published twice a year.

**WE WOULD RATHER TALK TO YOU DIRECT  
AND FORWARD SPECIMEN COPIES. ADVERTISING RATES  
SENT TO RELIABLE FIRMS. SEND YOUR SUBSCRIPTIONS  
AND ENQUIRIES TO**

**MACLAREN AND SONS LTD.  
37-38 SHOE LANE———LONDON, E.C. 4**

# THE CALDER & MERSEY EXTRACT Co., Ltd.

DITTON EXTRACT WORKS, DITTON, WIDNES, LANCs,  
AND  
WEST AFRICA HOUSE, WATER STREET, LIVERPOOL.

Telegrams :  
"Extract," Ditton.  
"Camesco," Liverpool.

Cables :  
A B C. 5th Edition.  
Lieber's.  
Western Union. Bentley's.

Telephones.  
163 Widnes.  
8683 1/4 Bank, Liverpool.

---

*Manufacturers of*  
**TANNING EXTRACTS**

*for Home and Export.*

QUEBRACHO, MYROBALAN, SUMAC, MIMOSA BARK, &c.

(LIQUID AND SOLID), AND

TANNERS' OILS. :: :: CHROME LIQUORS.  
SUITABLE FOR ALL TANNAGES. UNIFORMITY GUARANTEED.

---

*Sole Makers of*

**"CRESCENT" EXTRACT.**

A blended Quebracho Extract, for  
heavy and light leather tannages.

**"M.M.B." EXTRACT.**

A Pure Extract of Mimosa Bark.

**"WHITE STAR."**

Bleaching Extract.

**"S.S." EXTRACT.**

Specially suitable for Basil and  
Skiwer tannages.

**"CRESYNTAN."**

Universally acknowledged the Best  
Synthetic Tannin.

**"CAMESCO" OILS.**

High-class Sulphonated Oils for  
Leather.

*Sole Agents in the United Kingdom for*

Pure Soluble SOLID QUEBRACHO EXTRACT, "CROWN" BRAND.

Pure Ordinary SOLID QUEBRACHO EXTRACT.

MANUFACTURED IN THE ARGENTINE BY

The Forestal Land, Timber and Railways Co., Ltd.

Pure SOLID MIMOSA BARK EXTRACT, "ELEPHANT" BRAND.

MANUFACTURED IN NATAL BY


The Natal Tanning Extract Co., Ltd.

# CHROME.

SPARTAN MANFG. CO. LTD.

HORSELYDOWN WORKS.

TOWER BRIDGE, LONDON, S.E. 1.

CHROME HYDRAULIC BUTTS, CHROME BELTING BUTTS,  
CHROME PICKING-BAND BUTTS AND BANDS.  
CHROME BELTING, CHROME TWIST, CHROME LACES,  
CHROME ROUND AND CHROME  BANDING.

For  
Home



And  
Export

*The House for Tanning Materials,  
Chemicals, Oils and Dyestuffs*

**"BROFO" EXTRACT**—THE NEW EXTRACT FOR TANNERS—  
QUICKENS TANNING. — REDUCES COST.  
ENQUIRIES SOLICITED.

***Brown & Forth Limited.***

LONDON

21 Farringdon Street, E.C. 4 (Registered Office).  
Telegrams: CEREBI & Co. Cent. London.  
Telephone: City 9496, 7 & 8.

MANCHESTER

118 Chorlton Road.  
Telegrams: IDEM, Manchester.  
Telephone: Central 3283, 4.

# H. DENSHAM & SON, LTD.

## TANNERS

REDCROSS ST. TANNERY, BRISTOL, ENGLAND

ROUGH DRIED BUTTS FOR EXTRA HEAVY SINGLE BELTING  
ALL CLASSES OF MECHANICAL LEATHER

LONG PROCESS TANNAGE EIGHT MONTHS, MINIMUM

GUARANTEED UNWEIGHTED

SOLE BENDS FROM 8 TO 25 POUNDS  
PINNED SHOULDERS TANNED ON THE BUTT. BELLIES

BRITISH EMPIRE EXHIBITION

ENGINEERING SECTION  
Stand No. 158, 3rd Avenue, Bux 9

LEATHER SECTION  
Stand No. O. 580

TO SOLE AND HEAVY  
LEATHER TANNERS

TO SHEEP AND  
CALF-SKIN TANNERS

# IF YOU WISH TO OBTAIN

GOOD FIBRE  
SPEEDY TANNAGE  
PERMANENT COLOUR  
CLEAN MELLOW GRAIN  
SPECIALLY GOOD SUBSTANCE  
USE

LONG FIBRE  
WHITE CLOUR  
VERY SMOOTH GRAIN  
COMPACTNESS IN TEXTURE  
TOUGHNESS AND PLIABILITY  
USE

## MAXYNTAN

## MAXYNTAN S.S.

THE PERFECTED  
THE RESULTS OF  
MADE BY  
WITH PURELY

**B R I T I S H**  
**B R I T I S H**

SYNTHETIC TANNINS  
BRAINS AND RESEARCH  
LABOUR  
RAW MATERIALS

MANUFACTURED AND MARKETING BY

HAROLD M. MCARTHUR & Co., LTD.  
BULL LANE, AINTREE ——— LIVERPOOL



# CHADWICK & HOLLEBONE

BROKERS FOR ALL CLASSES  
OF RAW AND TANNED

## HIDES & SKINS

TANNING MATERIALS, FURS, HORNS, BONES, HAIR, ETC.

PERIODICAL PUBLIC AUCTIONS HELD IN LONDON

90 CANNON STREET, LONDON, E.C. 4

# MACHINE BELTING

*Manufacturers of*

BALATA  
COTTON  
HAIR

LEATHER  
RAWHIDE  
RUBBER

*Speciality—*

“Challenge” Super-Quality Balata Belting.

**THE OUTRA BELTING & RUBBER CO., LTD.,**  
236/7 BLACKFRIARS ROAD, LONDON, S.E.1.

Codes: A B C, 5th Edition  
A B C, 6th Edition & Letter  
Western Union  
Marconi International

Telephone—HOF, 1982  
Cables—“OUTRAJENBO,” LONDON.

# THE NATAL TANNING EXTRACT COMPANY, Ltd.

PIETERMARITZBURG, NATAL, SOUTH AFRICA (P.O. Box 39).

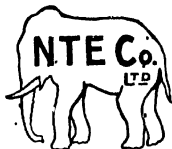
Tel. Address :

"Extract, Maritzburg, South Africa."

Codes :

Bentley's and A.B.C. 5th & 6th Editions.

Manufacturers of **PURE SOLID**



**MIMOSA BARK EXTRACT**

Elephant Brand

Guaranteed to contain a minimum of 60 per cent of Tannin by "Shake" method of analysis.

**GROWERS AND EXPORTERS OF MIMOSA BARK IN ALL FORMS.**

## AFRICAN AND EASTERN TRADE CORPORATION, LIMITED

*Merchants & Shipowners*

*Importers of Ivory, Hides, Skins, Piassava & similar products*

Head Office : ROYAL LIVER BUILDING, LIVERPOOL.

TELEGRAMS : "Desama, Liverpool."  
TELEPHONE : Bank 5570 Liverpool.

Africa House, Kingsway, London, W.C. 2.

AND AT TELEGRAMS : "Afroasian, Westcent, London."  
TELEPHONE : Holborn 2400 London

Africa House, 54 Whitworth Street, Manchester.

TELEGRAMS : "Afroasian, Manchester."  
TELEPHONE : Central 2860 Manchester.

NEW YORK AGENTS : African and Eastern Trading Co., Incorporated, 26 Beaver Street

CABLES : "Afroasian, New York." TELEPHONE : Brod 1720.

ESTABLISHMENTS AND AGENCIES : Canary Islands, Senegal, Gambia, Sierra Leone, Liberia, Ivory Coast, Gold Coast, Togoland, Dahomey, Nigeria, Cameroons, Belgian Congo, Angola, Morocco, Turkey, Levant, Palestine, Syria, Mesopotamia, Persia, British East Africa.

# PIONEERS

---

DRAKE, 1540-1596. RALEGH, 1552-1618.

Sailing of the Good Ship "MAYFLOWER," 1620.

WILLIAM BRENDON & SON, 1840,

*Plymouth.*

---

*Distinctive Letterpress Print and Appreciation of Type Form.*

---

*Commissioned by the Publishers to  
produce this Volume dealing with*

LEATHER, HIDES, FURS, ETC.,

*in the Survey of*

"THE RESOURCES OF THE BRITISH EMPIRE."

---

*In all Matters of Distinctive  
Printing and Binding consult*

Telegrams :

Brendonson,

PLYMOUTH



William Brendon & Son Ltd  
22, Plymouth Dock

Telephone :

1548,

PLYMOUTH

# **STRONG, RAWLE AND STRONG, LTD**

• 24 UPPER RUSSELL STREET, BERMONDSEY, LONDON, S.E. 1

London: Tel. Add.: "Stronabil, London."

Phone: Hon. 299.

## **HIDE MERCHANTS and FELLMONGERS**

Of Home and Colonial Skins.

The Leading House for Raw Hides, Calf and Sheep Skins.

*RUG AND MATTING SKINS A SPECIALITY.*

Branches—BIRKENHEAD (Liverpool), PLYMOUTH, TAUNTON, IPSWICH, Etc.

Birkenhead: Phone: Birkenhead 402.

### **The Levant Co. Ltd.**

Importers and Exporters

with Branches in

YUGOSLAVIA.  
BULGARIA.

ROUMANIA.  
AUSTRIA.  
EGYPT.

### **IMPORTERS**

OF

SHEEP SKINS & CASINGS.  
BRISTLES. FEATHERS.  
HAIR. HORNS.

*And similar Products from the  
Balkans and Near East.*

TELEGRAMS:  
ARIZANTINE.

TELEPHONE  
L.W. 5331-8711.

Manufacturers of

Will be pleased to send  
Illustrated Catalogue and  
Quotations on application

This is a Specimen of our No. 13 PIR GRAIN

RECOGNISED AS THE AUTHORITY ON AUSTRALIAN LEATHER AND HIDES.

**BOUTCHER, MORTIMORE & Co., Ltd.**  
**BERMONDSEY LONDON.**

Established over 100 years.

Direct Importers of

**Australian Sole Leathers & Hides**

Factors in all classes of

**HIDES, LEATHERS, TANNING  
MATERIALS, EXTRACTS, Etc.**

Cables:  
"BOUTCHERS, LONDON."

Codes used:  
Bontley's  
Western Union,  
A B C, 5th Edition.

*Principles and Practice  
of  
Wireless Transmission*

by  
**G. PARR**

Demonstrator in Electrical Engineering,  
Finsbury Technical College.

*A  
book in Non-Technical Language  
for those who are not content with  
"Listening-in."*

LONDON  
**ERNEST BENN LIMITED**  
8 Bouverie Street, E.C. 4

**The Northern Rubber Co., Ltd.**  
**RET FORD**

*Waterproofers and  
Waterproof Garment Makers*

Manufacturers of Rubber for all  
**MECHANICAL purposes and  
RAILWAYS**

*(Sole Manufacturers)*

**LEATHERITE**

*(Pegler's Compound)*

Unequalled for joints, valves, hose and  
tubing to resist H.P. steam,  
alkaline liquids, oil, etc.

*Speciality:*

**RUBBER TILING**  
*in all colours and designs*



**J. Hardy Smith & Sons**  
HIDE AND LEATHER FACTORS,  
CURRIERS, SHOE FINDINGS,  
INKS AND STAINS.

---

*Export a Speciality.*

---

**Belgrave Gate, Leicester.**

**"THE CHEMISTRY  
OF RUBBER"**

*SEE NEXT PAGE*

**RICHARD THACKRAY & SONS, L<sup>TD</sup>.**

**St. Helen's Leather Works, NEWLAY, Leeds**

(Station : Newlay & Horsforth, L. M. & S. Rly.)

MAKERS OF

Stout Dull Chrome Sides, in Black and Colours. Box and  
Willow Calf and Sides; also Russet, Waxed and Rolled Splits.

TELEGRAMS:

"CHROMITE, LEEDS" CODE: A B C. 5TH EDITION.

TELEPHONE:

HORSFORTH NO. 6.

Telegrams: "SKINWOOL, BERM. LONDON."

Telephone: HOI 4244 (2 lines).

**The London Butchers Hide & Skin Co. Ltd.**

**- 44 LEATHER MARKET, BERMONDSEY, LONDON, S.E. 1.**

**PUBLIC AUCTION SALES held every Thursday, at 2 p.m.**

Hides. Horse Hides. Calf, Sheep and Lambs' Skins.

**AGENTS FOR COLONIAL AND FOREIGN CONSIGNMENTS.**

Branch Business: **Okehampton Street, EXETER.** Telephone: 77 Exeter.

W. COGGAN, O.B.E., Managing Director and Chairman.

MEMBERS OF  
THE LONDON  
FUR TRADE  
ASSOCIATION.

**T. DYER & Co., Ltd.**

ACTUAL MANUFACTURERS OF

HIGH-CLASS *Fur Coats and Small Furs*

112 QUEEN VICTORIA STREET  
LONDON, E.C.4

ESTABLISHED  
OVER  
46 YEARS.

ALSO  
ATLAS CHAMBERS,  
LEEDS.

TELEGRAMS:

"DYEROVIS, CENT.  
LONDON."

PHONES:

CENTRAL 356.  
LEEDS 25394.

ONE OF THE BEST BOOKS  
IN THE TECHNICAL CHEMISTRY SERIES  
OF  
ERNEST BENN LIMITED

# THE CHEMISTRY OF RUBBER

By

B. D. WILKINSON LUFF, F.I.C.

(Chief Research Chemist to the North British Rubber Company).

16 Half Tone Plates and Numerous Line Drawings.

PRICE 25/- net.

---

## SOME EXTRACTS FROM REVIEWS.

"This new book is a pleasant and welcome surprise. It is the first publication to deal comprehensively yet concisely with certain important researches and developments, such as those in connection with the filler as a reinforcing agent, with particle size, with accelerators, with accelerated ageing, with the relationship between chemical and mechanical properties, and even (Mr. Luff is nothing if not up-to-date) with the vulcanisation of rubber latex, sprayed rubber and the use of rubber litharge master stocks to avoid the fume process regulations . . . so excellent as regards paper, print, and illustrations . . . the reproductions of views, apparatus, etc., are all originals. I can quite sincerely congratulate Mr. Luff."

Dr. PHILIP SCHIDROWITZ in *The India Rubber Journal*.

"Reviews the subject in well-observed perspective . . . will be found useful to those who wish to have an accurate view of the present state of knowledge . . . the illustrations are judiciously selected and well executed."

*The Times Trade and Engineering Supplement.*

"Well informed and well arranged, Mr. Luff's book is an admirable statement of what is at present known in regard to the ordinary processes of rubber manufacture, and of the effect of the various agents and fillers used in the process of vulcanisation."—*The Sportsman*.

---

8 BOUVERIE STREET, LONDON, E.C. 4

# **2** INDISPENSABLE BOOKS FOR THE ELECTRICAL ENGINEER

## **➔ The Poulsen Arc Generator**

By **C. F. ELWELL**

Fellow of the Institute of Radio Engineers.



## **➔ Electrical Handling of Materials**

By **H. H. BROUGHTON**

M. Mech.E., M.I.E.E., Etc.

**A MANUAL IN FOUR VOLUMES**

MANY OTHER STANDARD ELECTRICAL BOOKS

*Catalogues on application to the Publishers.*

**ERNEST BENN LIMITED,** 18 BOUVERIE ST.,  
LONDON. E.C. 4



# The EUROPEAN COMMERCIAL

An ORGAN of WORLD-WIDE COMMERCE

---

PUBLISHED WEEKLY

THE EUROPEAN COMMERCIAL is  
**A WORLD NEWSPAPER**

It knows no politics:  
only hard commercial facts.

TO OBTAIN  
THE GREATEST BENEFIT FROM  
THE EUROPEAN COMMERCIAL  
YOU MUST READ IT REGULARLY

---

ANNUAL/SUBSCRIPTION £2 2s. 0d. POST FREE

LONDON:  
8 Boulevard Street, E.C. 4.

Continental Offices:  
VIENNA.





